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17. ABSTRACT (MAX. 250 WORDS)

A compilation of outlines, discussion questions, and suggested readings in connection with five institute sections dealing with institutional research on students: (1) Selection of students, (2) retention and withdrawal, (3) student values and attitudes, (4) student society, and (5) institutional research planning. Bibliography of 100 titles.

The purpose of this study was to develop a formula for the prediction of honor point averages for use in freshman guidance; to determine how consistently the regression equation predicts first-quarter grade point averages as compared with grades made in three quarters; to determine if a relationship exists between certain background factors of the student and his grade point average; and, on the basis of findings, to make recommendations to improve the guidance services at the Alabama Agricultural and Mechanical College. Offers nine general recommendations.

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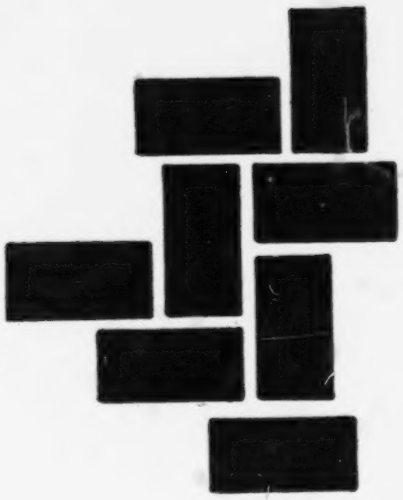
Summer Institute

INSTITUTIONAL RESEARCH ON STUDENTS

University of California
Berkeley, July 26-30, 1960



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Institute for College and University Administrators

INSTITUTIONAL RESEARCH ON STUDENTS

University of California
July 26-30, 1960

Western Interstate Commission for Higher Education
and
Center for the Study of Higher Education
University of California
Berkeley

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INSTITUTE
INSTITUTIONAL RESEARCH ON STUDENTS
July 26-30, University of California, Berkeley

Western Interstate Commission for Higher Education and
Center for the Study of Higher Education,
University of California, Berkeley

Tuesday, July 26, 1960

	Noon-6 p.m.	Registration
	6:00 p.m.	Dinner
		Welcoming Remarks:
		Dr. R. G. Axt, Associate Director, WICHE Dr. T. R. McConnell, Chairman, CSHE
SELECTION	7:30 p.m.	Talk: Our Failure to Exploit Student Resources by: Theodore Newcomb
		Discussion:

Wednesday, July 27, 1960

	7:00-8:00 a.m.	Breakfast
	8:30-9:45	Talk: A Research Orientation to Selection, Admission, and Differential Education by: Paul Heist and Harold Webster
	10:00-12:00	Discussion:
	12:15	Lunch
RETENTION AND WITHDRAWAL	1:30-2:30	Talk: Institutional Research on Retention and Withdrawal by: Dorothy Knoell
	2:45-4:30	Discussion
	6:00	Dinner
	7:00	Address: The California Master Plan and Institutional Research by: Dean McHenry

Thursday, July 28, 1960

	7:00-8:00	Breakfast
VALUES AND ATTITUDES	8:30-9:45	Talk: Student Values and Their Relationship to the College Environment by: George Stern
	10:00-12:00	Discussion
	12:15	Lunch
STUDENT SOCIETY	1:30-2:30	Talk: The Campus Viewed as a Culture by: Martin Trow
	2:45-4:30	Discussion
	5:30	Reception
	6:30	Dinner

Friday, July 29, 1960

	7:00-8:00	Breakfast
RESEARCH PLANNING	8:30-9:00	Research Programs for Four "Typical" Institutions William Craig - Private College James I. Doi - Public University Hugh G. Price - Junior College Clarence Bagley - Public 4-year College
	9:15-12:00	Discussion
	12:15	Lunch
	1:30-2:30	Reports of discussion
	2:45-4:00	Talks: Ongoing Programs of Institutional Research on Students E. L. Klingelhofer Walter T. Plant William Craig
	6:00	Dinner
	7:30	Summary of Institute Discussions by: Dr. Leonard Goodstein

Saturday, July 30, 1960

	7:00-8:00	Breakfast
	9:00-11:00	Discussion of multi-institutional research programs on students.

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NOTES ON DISCUSSION GROUPS

One of the dangers of meetings such as this is that participants will get "talked to" too much. In an attempt to prevent this from happening, we have scheduled five discussion sessions, on Wednesday morning and afternoon, Thursday morning and afternoon, and Friday morning.

The possibility exists, of course, that these will be a waste of time. To prevent this from happening, we have organized the groups to this extent:

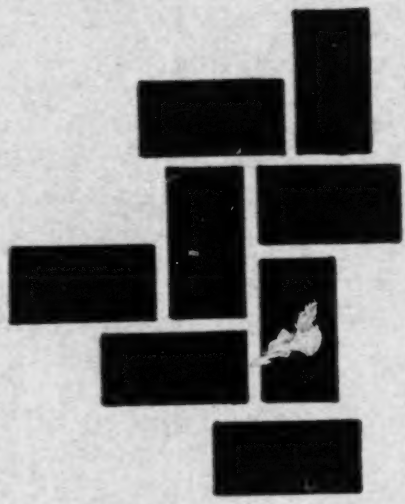
(1) each discussion group will have a discussion leader;

(2) a list of discussion questions will serve as a first step in ordering the discussion;

(3) resource persons will assist the groups on matters which are beyond the experience of the participants;

(4) each group will be composed of persons from similar kinds of institutions.

There is still a chance the discussion sessions will be aimless bull sessions. We hope you will make them something more by tossing in your own ideas and keeping the discussion centered on the topic of the Institute--Research on Students.



1. Selection of Students

OUTLINE

Our Failure to Exploit Student Resources
T. M. Newcomb

Everyday observation, theoretical considerations, and research evidence all point to the conclusion that, in present-day colleges in America, students are more influenced by each other than by their teachers. We do not have positive proof of this, and we need to know much more about the areas in which it is true. But we do know that the power of student peer groups over their members is considerable, and there are reasons to suspect that it is often expressed in ways that are unrelated or even opposed to the presumed objectives of colleges.

The conditions which result in strong peer-group influence are at least partly under the control of college officials. They include population size (both of entire colleges and of groups of students who live, eat, and study together); homogeneity of student interests and values; isolation from groups which subscribe to values opposed to those of peer groups. Thus college policies which affect admissions, assignment of students to living quarters and dining rooms, and the ways in which students associate with each other in their academic pursuits--all these affect both the intensity and the content of peer-group influence.

It is to be regretted not that such influence exists, but that the planning of college officials rarely takes it adequately into account. It could be used to further intellectual and academic objectives; insofar as this does not occur, we are failing to exploit one of our most important resources.

DISCUSSION QUESTIONS

Our Failure to Exploit Student Resources

1. To what extent, and in what ways, have you observed that students reinforce each others' attitudes in ways that are opposed to faculty objectives?

2. Can you give illustrations in which peer-group influence has served to further intellectual and academic objectives? If so, what conditions have been responsible for such outcomes?

3. Do faculty members and administrative officials view their functions in such different ways that it is difficult for them to engage in joint planning toward the improvement of the college output?

4. How does the nature and extent of peer-group influence differ in (1) large and small colleges? (2) commuter and residential colleges? (3) public and private colleges? Why these differences?

SUGGESTED READING

1. "Attitude Development As a Function of Reference Groups"
   by Theodore Newcomb (enclosed)

*2. "Non-Intellective Factors As Predictors, As Criteria, and As Contingencies in Selection and Guidance"
   by Joshua A. Fishman

*3. "Differential Characteristics of Student Bodies--Implications for Selection and Study of Undergraduates"
   by Paul Heist and Harold Webster

*4. "College Image and Student Selection"
   by Burton R. Clark

5. They Come for the Best of Reasons
   by Max Wise (Copies handed out at registration)

---

*Appears in Selection and Educational Differentiation, Field Service Center and Center for the Study of Higher Education, 1960. You were given a copy of this publication at registration.

Reprinted from
READINGS IN SOCIAL PSYCHOLOGY
Third Edition (1958)

Attitude Development As A Function of Reference Groups: The Bennington Study

By Theodore M. Newcomb

Membership in established groups usually involves the taking on of whole patterns of interrelated behavior and attitudes. This was one of the hypotheses pursued in the study which is reported here in part. The group selected for study consisted of the entire student body at Bennington College--more than 600 individuals--between the years 1935 and 1939. One of the problems to be investigated was that of the manner in which the patterning of behavior and attitudes varied with different degrees of assimilation into the community.

Not all of the attitudes and behaviors that are likely to be taken on by new members, as they become absorbed into a community, can be investigated in a single study. A single, though rather inclusive, area of adaptation to the college community was therefore selected for special study, namely, attitudes toward public affairs. There were two reasons for this selection: (1) methods of attitude measurement were readily available; and (2) there was an unusually high degree of concern, in this community at this time, over a rather wide range of public issues. This latter fact resulted partly from the fact that the college opened its doors during the darkest days of the depression of the 1930's, and its formative period occurred in the period of social change characterized by the phrase "the New Deal." This was also the period of gathering war clouds in Europe. Underlying both of these circumstances, however, was the conviction on the part of the faculty that one of the foremost duties of the college was to acquaint its somewhat oversheltered students with the nature of their contemporary social world.

In a membership group in which certain attitudes are approved (i.e., held by majorities, and conspicuously so by leaders), individuals acquire the approved attitudes to the extent that the membership group (particularly as symbolized by leaders and dominant sub-groups) serves as a positive point of reference. The findings of the Bennington study seem to be better understood in terms of this thesis than any other. The distinction between membership group and reference group is a crucial one, in fact, although the original report did not make explicit use of it.

The above statement does not imply that no reference groups other than the membership group are involved in attitude formation; as we shall see, this is distinctly not the case. Neither does it imply that the use of the membership group as reference group necessarily results in adoption of the approved attitudes. It may also result in their rejection; hence the word positive in the initial statement. It is precisely these variations in degree and manner of relationship between reference group and membership group which much be known in order to explain individual variations in attitude formation, as reported in this study.

The essential facts about the Bennington membership group are as follows: (1) It was small enough (about 250 women students) so that data could be obtained from every member. (2) It was in most respects self-sufficient; college facilities provided not only the necessities of living and studying, but also a cooperative store, post office and Western Union office, beauty parlor, gasoline station, and a wide range of recreational opportunities. The average student visited the four-mile-distant village once a week and spent one week end a month away from the college. (3) It was self-conscious and enthusiastic, in large part because it was new (the study was begun during the first year in which there was a senior class) and because of the novelty and attractiveness of the college's educational plan. (4) It was unusually active and concerned about public issues, largely because the faculty felt that its educational duties included the familiarizing of an oversheltered student body with the implications of a depression-torn America and a war-threatened world. (5) It was relatively homogeneous in respect to home background; tuition was very high, and the large majority of students came from urban, economically privileged families whose social attitudes were conservative.

Most individuals in this total membership group went through rather marked changes in attitudes toward public issues, as noted below. In most cases the total membership group served as the reference group for the changing attitudes. But some individuals changed little or not at all in attitudes during the four years of the study; attitude persistence was in some of these cases a function of the membership group as reference group and in some cases it was not. Among those who did change, moreover, the total membership group sometimes served as reference group but sometimes it did not. An oversimple theory of "assimilation into the community" thus leaves out of account some of those whose attitudes did and some of those whose attitudes did not change; they remain unexplained exceptions. A theory which traces the impact of other reference groups as well as the effect of the membership group seems to account for all cases without exception.

The general trend of attitude change for the total group is from freshman conservatism to senior nonconservatism (as the term was commonly applied to the issues toward which attitudes were measured). During the 1936 presidential election, for example, 62 percent of the freshmen and only 14 percent of the juniors and seniors "voted" for the Republican candidate, 29 percent of freshmen and 54 percent of juniors and seniors for Roosevelt, and 9 percent of freshmen as compared with 30 percent of juniors and seniors for the Socialist or Communist candidates. Attitudes toward nine specific issues were measured during the four years of the study, and seniors were less conservative in all of them than freshmen; six of the nine differences are statistically reliable. These differences are best shown by a Likert-type scale labeled Political and Economic Progressivism (PEP) which dealt with such issues as unemployment, public relief, and the rights of organized labor, which were made prominent by the New Deal. Its odd-even reliability was about .9, and it was given once or more during each of the four years of the study to virtually all students. The critical ratios of the differences between freshmen and juniors-seniors in four successive years ranged between 3.9 and 6.5; the difference between the average freshman and senior scores of 44 individuals (the entire class that graduated in 1939) gives a critical ratio of 4.3.

As might be anticipated in such a community, *individual prestige was associated with nonconservatism*. Frequency of choice as one of five students "most worthy to represent the College" at an intercollegiage gathering was used as a measure of prestige. Nominations were submitted in sealed envelopes by 99 percent of all students in two successive years, with almost identical results. The nonconservatism of those with high prestige is not merely the result of the fact that juniors and seniors are characterized by both high prestige and nonconservatism; in each class those who have most prestige are least conservative. For example, ten freshmen receiving 2 to 4 choices had an average PEP score of 64.6 as compared with 72.8 for freshmen not chosen at all (high scores are conservative); eight sophomores chosen 12 or more times had an average score of 63.6 as compared with 71.3 for those not chosen; the mean PEP score of five juniors and seniors chosen 40 or more times was 50.4 and of the fifteen chosen 12 to 39 times, 57.6, as compared with 69.0 for those not chosen. In each class, those intermediate in prestige are also intermediate in average PEP score.

Such were the attitudinal characteristics of the total membership group, expressed in terms of average scores. Some individuals, however, showed these characteristics in heightened form and others failed to show them at all. An examination of the various reference groups in relation to which attitude change did or did not occur, and of the ways in which they were brought to bear, will account for a large part of such attitude variance.

Information concerning reference groups was obtained both directly, from the subjects themselves, and indirectly, from other students and from teachers. Chief among the indirect procedures was the obtaining of indexes of "community citizenship" by a guess-who technique. Each of twenty-four students, carefully selected to represent every cross section and grouping of importance within the community, named three individuals from each of three classes who were reputedly most extreme in each of twenty-eight characteristics related to community citizenship. The relationship between reputation for community identification and nonconservatism is a close one, in spite of the fact that no reference was made to the latter characteristic when the judges made their ratings. A reputation index was computed, based upon the frequency with which individuals were named in five items dealing with identification with the community, minus the number of times they were named in five other items dealing with negative community attitude. Examples of the former are: "absorbed in college community affairs," and "influenced by community expectations regarding codes, standards, etc."; examples of the latter are: "indifferent to activities of student committees," and "resistant to community expectations regarding codes, standards, etc." The mean senior PEP score of fifteen individuals whose index was +15 or more was 54.4; of sixty-three whose index was +4 to -4, 65.3; and of ten whose index was -15 or less, 68.2

To have the reputation of identifying oneself with the community is not the same thing, however, as to identify the community as a reference group for a specific purpose--e.g., in this case, as a point of reference for attitudes toward public issues. In short, the reputation index is informative as to degree and direction of tendency to use the total membership group as a general reference group, but not necessarily as a group to which social attitudes are referred. For this purpose information was obtained directly from students.

Informal investigation had shown that whereas most students were aware of the marked freshman-to-senior trend away from conservatism, a few (particularly among the conservatives) had little or no awareness of it. Obviously, those not aware of the dominant community trend could not be using the community as a reference group for an attitude. (It does not follow, of course, that all those who are aware of it are necessarily using the community as reference group.) A simple measure of awareness was therefore devised. Subjects were asked to respond in two ways to a number of attitude statements taken from the PEP scale: first, to indicate agreement or disagreement (for example, with the statement: "The budget should be balanced before the government spends any money on social security"); and second, to estimate what percentage of freshmen, juniors and seniors, and faculty would agree with the statement. From these responses was computed an index of divergence (of own attitude) from the estimated majority of juniors and seniors. Thus a positive index on the part of a senior indicates the degree to which her own responses are more conservative than those of her classmates, and a negative index the degree to which they are less conservative. Those seniors whose divergence index more or less faithfully reflects the true difference between own and class attitude may (or may not) be using the class as an attitude reference group; those whose divergence indexes represent an exaggerated or minimized version of the true relationship between own and class attitude are clearly not using the class as an attitude reference group, or if so, only in a fictitious sense. (For present purposes the junior-senior group may be taken as representative of the entire student body, since it is the group which "sets the tone" of the total membership group.)

These data were supplemented by direct information obtained in interviews with seniors in three consecutive classes, just prior to graduation. Questions were asked about resemblance between own attitudes and those of class majorities and leaders, about parents' attitudes and own resemblance to them, about any alleged "social pressure to become liberal," about probable reaction if the dominant college influence had been conservative instead of liberal, etc. Abundant information was also available from the college personnel office and from the college psychiatrist. It was not possible to combine all of these sources of information into intensive studies of each individual, but complete data were assembled for (roughly) the most conservative and least conservative sixths of three consecutive graduating classes. The twenty-four non-conservative and nineteen conservative seniors thus selected for intensive study were classified according to their indexes of conservative divergence and of community reputation. Thus eight sets of seniors were identified, all individuals within each set having in common similar attitude scores, similar reputations for community identification, and similar degrees of awareness (based upon divergence index) of own attitude position relative to classmates. The following descriptions of these eight sets of seniors will show that there was a characteristic pattern of relationship between membership group and reference group within each of the sets.

1. *Conservatives, reputedly negativistic, aware of their own relative conservatism.* Four of the five are considered stubborn or resistant by teachers (all five, by student judges). Three have prestige scores of 0, scores of the other two being about average for their class. Four of the five are considered by teachers or psychiatrist, or by both, to be overdependent upon one or both parents. All of the four who were interviewed described *their major hopes*, on entering college, *in terms of social rather than academic prestige*; all four felt that they had been defeated in this aim. The following verbatim quotations are illustrative:

E2: "Probably the feeling that (my instructors) didn't accept me led me to reject their opinions." (She estimates classmates as being only moderately less conservative than herself, but faculty as much less so.)

G32: "I wouldn't care to be intimate with those so-called 'liberal' student leaders." (*She claims to be satisfied with a small group of friends*. She is chosen as friend, in a sociometric questionnaire responded to by all students, only twice, and reciprocates both choices; both are conservative students.)

F22: "I wanted to disagree with all the noisy liberals, but I was afraid and I couldn't. *So I built up a wall inside me against what they said. I found I couldn't compete, so I decided to stick to my father's ideas. For at least two years I've been insulated against all college influences.*" (She is chosen but once as a friend, and does not reciprocate that choice.)

Q10: (who rather early concluded that she had no chance of social success in college) "It hurt me at first, but now I don't give a damn. *The things I really care about are mostly outside the college.* I think radicalism symbolizes the college for me more than anything else." (Needless to say, she has no use for radicals.)

For these four individuals (and probably for the fifth also) the community serves as reference group in a *negative* sense, and the home-and-family group in a positive sense. Thus their conservatism is dually reinforced.

2. *Conservatives, reputedly negativistic, unaware of their own relative conservatism.* All five are described by teachers, as well as by guess-who judges, to be stubborn or resistant. Four have prestige scores of 0, and the fifth a less than average score. Each reciprocated just one friendship choice. Four are considered insecure in social relationships, and all five are regarded as extremely dependent upon parents. In interviews four describe with considerable intensity, and the fifth with more moderation, precollege experiences of rebuff, ostracism, or isolation, and all describe their hopes, on entering college, in terms of making friends or avoiding rebuff rather than in terms of seeking prestige. All five felt that their (rather modest) aims had met with good success. Each of the five denies building up any resistance to the acceptance of liberal opinions (but two add that they would have resented any such pressure, if felt). Three believe that only small, special groups in the college have such opinions, while the other two describe themselves as just going their own way, *paying no attention to anything but their own little circles and their college work*. Typical quotations follow:

Q47: "I'm a perfect middle-of-the-roader, neither enthusiast nor critic. I'd accept anything if they just let me along....I've made all the friends I want." (Only one of her friendship choices is reciprocated.)

Q19: "*In high school I was always thought of as my parents' daughter*. I never felt really accepted for myself....I wanted to make my own way here, socially, but independence from my family has never asserted itself in other ways." (According to guess-who ratings, she is highly resistant to faculty authority.)

L12: "What I most wanted was to get over being a scared bunny....I always resent doing the respectable thing just because it's the thing to do, but I didn't realize I was so different, politically, from my classmates. At least I agree with the few people I ever talk to about such matters." (Sociometric responses place her in a small, conservative group.)

Q81: "I hated practically all my school life before coming here. I had the perfect inferiority complex, and I pulled out of school social life--out of fear. I didn't intend to repeat that mistake here.... I've just begun to be successful in winning friendships, and I've been blissfully happy here." (She is described by teachers as "pathologically belligerent": she receives more than the average number of friendship choices, but reciprocates only one of them.)

For these five individuals, who are negativistic in the sense of being near-isolates rather than rebels, the community does not serve as reference group for public attitudes. To some extent, their small friendship groups serve in this capacity, but in the main they still refer such areas of their lives to the home-and-family group. They are too absorbed in their own pursuits to use the total membership group as a reference group for most other purposes, too.

3. *Conservatives, not reputedly negativistic, aware of their own relative conservatism*. Three of the five are described by teachers as "cooperative" and "eager," and none as stubborn or resistant. Four are above average in prestige. Four are considered by teachers or by guess-who raters, or both, to retain very close parental ties. All four who were interviewed had more or less definite ambitions for leadership on coming to college, and all felt that they had been relatively successful--though, in the words of one of them, none ever attained the "really top-notch positions." All four are aware of conflict between parents and college community in respect to public attitudes, and all quite consciously decided to "string along" with parents, feeling self-confident of holding their own in college in spite of being atypical in this respect. Sample quotations follow:

Q73: "*I'm all my mother has in the world. It's considered intellectually superior here to be liberal or radical. This puts me on the defensive*, as I refuse to consider my mother beneath me intellectually, as so many other students do. Apart from this, I have loved every aspect of college life." (A popular girl, many of whose friends are among the nonconservative college leaders.)

Q78: "*I've come to realize how much my mother's happiness depends on me, and the best way I can help her is to do things with her at home as often as I can*. This has resulted in my not getting the feel of the college in certain ways, and I know my general conservatism is one of those ways. But it has not been important enough to me to make me feel particularly left out. If you're genuine and inoffensive about your opinions, no one really minds here if you remain conservative." (Another popular girl, whose friends were found among many groups.)

F32: "*Family against faculty has been my struggle here*. As soon as I felt really secure here I decided not to let the college atmosphere affect me too much. Every time I've tried to rebel against my family I've found out how terribly wrong I am, and so I've naturally kept to my parents' attitudes." (While not particularly popular, she shows no bitterness and considerable satisfaction over her college experience.)

Q35: "I've been aware of a protective shell against radical ideas. When I found several of my best friends getting that way, I either had to go along or just shut out that area entirely. I couldn't respect myself if I had changed my opinions just for that reason, and so I almost deliberately lost interest--really, *it was out of fear of losing my friends*." (A very popular girl, with no trace of bitterness, who is not considered too dependent upon parents.)

For these five the total membership group does not serve as reference group in respect to public attitudes, but does so serve for most other purposes. At some stage in their college careers the conflict between college community and home and family as reference group for public attitudes was resolved in favor of the latter.

4. Conservatives, not reputedly negativistic, not aware of their own relative conservatism. All four are consistently described by teachers as conscientious and cooperative; three are considered overdocile and uncritical of authority. All are characterized by feelings of inferiority. All are low in prestige, two receiving scores of 0; all are low in friendship choices, but reciprocate most of these few choices. Two are described as in conflict about parental authority, and two as dependent and contented. All four recall considerable anxiety as to whether they would fit into the college community; all feel that they have succeeded better than they had expected. Sample statements from interviews follow:

D22: "I'd like to think like the college leaders, but I'm not bold enough and I don't know enough. So the college trend means little to me. I didn't even realize how much more conservative I am than the others. I guess my family influence has been strong enough to counterbalance the college influence." (This girl was given to severe emotional upsets, and according to personnel records, felt "alone and helpless except when with her parents.")

M12: "It isn't that I've been resisting any pressure to become liberal. The influences here didn't matter enough to resist, I guess. All that's really important that has happened to me occurred outside of college, and so I never became very susceptible to college influences." (Following her engagement to be married, in her second year, she had "practically retired" from community life.)

Q68: "If I'd had more time here I'd probably have caught on to the liberal drift here. But I've been horribly busy making money and trying to keep my college work up. Politics and that sort of thing I've always associated with home instead of with the college." (A "town girl" of working-class parentage.)

Q70: "Most juniors and seniors, if they really get excited about their work, forget about such community enthusiasms as sending telegrams to Congressmen. It was so important to me to be accepted, I mean intellectually, that I naturally came to identify myself in every way with the group which gave me this sort of intellectual satisfaction." (One of a small group of science majors, nearly all conservative, who professed no interests other than science and who were highly self-sufficient socially.)

For none of the four was the total membership group a reference group for public attitudes. Unlike the nonnegativistic conservatives who are aware of their relative conservatism, they refer to the total membership group for few if any other purposes. Like the negativistic conservatives who are unaware of their relative conservatism, their reference groups for public attitudes are almost exclusively those related to home and family.

5. Nonconservatives, reputedly community-identified, aware of their relative nonconservatism. Each of the seven is considered highly independent by teachers, particularly in intellectual activities; all but one

are referred to as meticulous, perfectionist, or overconscientious. Four are very high in prestige, two high, and one average; all are "good group members," and all but one a "leader." None is considered overdependent upon parents. All have come to an understanding with parents concerning their "liberal" views; five have "agreed to differ," and the other two describe one or both parents as "very liberal." All take their public attitudes seriously, in most cases expressing the feeling that they have bled and died to achieve them. Interview excerpts follow:

B72: "I bend in the direction of community expectation--almost more than I want to. I constantly have to check myself to be sure it's real self-conviction and not just social respect." (An outstanding and deeply respected leader.)

M42: "My family has always been liberal, but the influences here made me go further, and for a while I was pretty far left. Now I'm pretty much in agreement with my family again, but it's my own and it means a lot. It wouldn't be easy for me to have friends who are very conservative." (Her friendship choices are exclusively given to nonconservatives.)

E72: "I had been allowed so much independence by my parents that I needed desperately to identify myself with an institution with which I could conform conscientiously. Bennington was perfect. I drank up everything the college had to offer, including social attidues, though not uncritically. I've become active in radical groups and constructively critical of them." (Both during and after college she worked with C.I.O. unions.)

H32: "I accepted liberal attitudes here because I had always secretly felt that my family was narrow and intolerant, and because such attitudes had prestige value. It was all part of my generally expanding personality--I had never really been part of anything before. I don't accept things without examining things, however, and I was sure I meant it before I changed." (One of those who has "agreed to differ" with parents.)

Q43: "It didn't take me long to see that liberal attitudes had prestige value. But all the time I felt inwardly superior to persons who want public acclaim. Once I had arrived at a feeling of personal security, I could see that it wasn't important--it wasn't enough. So many people have no security at all. I became liberal at first because of its prestige value. I remain so because the problems around which my liberalism centers are important. What I want now is to be effective in solving the problems." (Another conspicuous leader, active in and out of college in liberal movements.)

The total membership clearly serves as reference group for these individuals' changing attitudes, but by no means as the only one. For those whose parents are conservative, parents represent a negative reference group, from whom emancipation was gained via liberal attitudes. And for several of them the college community served as a bridge to outside liberal groups as points of reference.

6. *Nonconservatives, reputedly community-identified, not aware of their own relative nonconservatism*. The word *enthusiastic* appears constantly in the records of each of these six. All are considered eager, ambitious, hard-working, and anxious to please. Four are very high in prestige, the other two about average. None is considered over-dependent upon parents, and only two are known to have suffered any particular conflict in achieving emancipation. Each one came to college with ambitions for leadership, and each professes extreme satisfaction with her college experience. Sample quotations follow:

Qx: "Every influence I felt tended to push me in the liberal direction: my underdog complex, *my need to be independent of my parents, and my anxiousness to be a leader here*."

Q61: "I met a whole body of new information here; I took a deep breath and plunged. When I talked about it at home my family began to treat me as if I had an adult mind. *Then too, my new opinions gave me the reputation here of being open-minded and capable of change.* I think I could have got really radical but I found it wasn't the way to get prestige here." (She judges most of her classmates to be as nonconservative as herself.)

Q72: "I take everything hard, and so of course I reacted hard to all the attitudes I found here. I'm 100-per cent enthusiastic about Bennington, and that includes liberalism (but not radicalism, though I used to think so). Now I know that you can't be an *extremist if you're really devoted to an institution*, whether it's a labor union or a college." (A conspicuous leader who, like most of the others in this set of six, *judges classmates to be only slightly more conservative than herself*.)

Q63: "*I came to college to get away from my family*, who never had any respect for my mind. Becoming a radical meant thinking for myself and, figuratively, thumbing my nose at my family. *It also meant intellectual identification with the faculty and students that I most wanted to be like*." (She has always felt oppressed by parental respectability and sibling achievements.)

Q57: "It's very simple, *I was so anxious to be accepted that I accepted the political complexion of the community here*. I just couldn't stand out against the crowd unless I had many friends and strong support." (Not a leader, but many close friends among leaders and nonconservatives.)

For these six, like the preceding seven, the membership group serves as reference group for public affairs. They differ from the preceding seven chiefly in that they are less sure of themselves and are careful "not to go too far." Hence they tend to repudiate "radicalism," and to judge classmates as only slightly less conservative than themselves.

7. *Nonconservatives, not reputedly community-identified, aware of own relative nonconservatism*. Each of the six is described as highly independent and critical-minded. Four are consistently reported as

intellectually outstanding, and the other two occasionally so. All describe their ambitions on coming to college in intellectual rather than in social terms. Four of the five who were interviewed stated that in a conservative college they would be "even more radical than here." Two are slightly above average in prestige, two below average, and two have 0 scores. Three have gone through rather severe battles in the process of casting off what they regard as parental shackles; none is considered overdependent upon parents. Sample interview excerpts follow:

Q7: "All my life I've resented the protection of governesses and parents. What I most wanted here was the intellectual approval of teachers and the more advanced students. Then I found you can't be reactionary and be intellectually respectable." (Her traits of independence became more marked as she acieved academic distinction.)

Q21: "I simply got filled with new ideas here, and the only possible formulation of all of them was to adopt a radical approach. I can't see my own position in the world in any other terms. The easy superficiality with which so many prestige-hounds here get 'liberal' only forced me to think it out more intensely." (A highly gifted girl, considered rather aloof.)

C32: "I started rebelling against my pretty stuffy family before I came to college. I felt apart from freshmen here, because I was older. Then I caught on to faculty attempts to undermine prejudice. I took sides with the faculty immediately, against the immature freshmen. I crusaded about it. It provided just what I needed by way of family rebellion, and bolstered up my self-confidence, too." (A very bright girl, regarded as sharp tongued and a bit haughty.)

J24: "I'm easily influenced by people whom I respect, and the people who rescued me when I was down and out, intellectually, gave me a radical intellectual approach; they included both teachers and advanced students. I'm not rebelling against anything. I;m just doing what I had to do to stand on my own feet intellectually." (Her academic work was poor as a freshman, but gradually became outstanding.)

For these six students it is not the total membership group, but dominant subgroups (faculty, advanced students) which at first served as positive reference groups, and for many of them the home group served as a negative point of reference. Later, they developed extracollege reference groups (left-wing writers, etc.). In a secondary sense, however, the total membership group served as a negative point of reference--i.e. they regarded their nonconservatism as a mark of personal superiority.

8. Nonconservatives, not reputedly community-identified, not aware of own relative nonconservatism. Each of the five is considered hard-working, eager, and enthusiastic but (especially during the first year or two) unsure of herself and too dependent upon instructors. They are "good citizens," but in a distinctly retiring way. Two are above average in

prestige, and the other three much below average. None of the five is considered overdependent upon parents; two are known to have experienced a good deal of conflict in emancipating themselves. All regard themselves as "pretty average persons," with strong desire to conform; they describe their ambitions in terms of social acceptance instead of social or intellectual prestige. Sample excerpts follow:

E22: "*Social security is the focus of it all with me*. I became steadily less conservative as long as I was *needing to gain in personal security, both with students and with faculty*. I developed some resentment against a few extreme radicals who don't really represent the college viewpoint, and that's why I changed my attitudes so far and no further." (A girl with a small personal following, otherwise not especially popular.)

D52: "*Of course there's social pressure here to give up your conservatism*. I'm glad of it, because for me this became the *vehicle for achieving independence from my family*. So changing my attitudes has gone hand in hand with two *very important things*: *establishing my own independence and at the same time becoming a part of the college organism*." (She attributes the fact that her social attitudes changed, while those of her younger sister, also at the college, did not, to the fact that she had greater need both of family independence and of group support.)

Q6: "I was ripe for developing liberal or even radical opinions because so many of my friends at home were doing the same thing. So it was really wonderful that I could agree with all the people I respected here and the same time move in the direction that my home friends were going." (A girl characterized by considerable personal instability at first, but showing marked improvement.)

Qy: "I think my change of opinions has given me *intellectual and social self-respect at the same time*. I used to be too timid for words, and I never had an idea of my own. As I gradually became more successful in my work and made more friends, I came to feel that it didn't matter so much whether I agreed with my parents. It's all part of the feeling that I really belong here." (Much other evidence confirms this; she was lonely and pathetic at first, but really belonged later.)

These five provide the example *par excelence* of individuals who came to identify themselves with "the community" and whose attitudes change *pari passu* with the growing sense of identity. Home-and-family groups served as supplementary points of reference, either positive or negative. To varying degrees, subgroups within the community served as focal points of reference. But, because of *their need to be accepted*, *it was primarily the membership group as such which served as reference group for these five*.

SUMMARY

In this community, as presumably in most others, all individuals belong to the total membership group, but such membership is not necessarily a point of reference for every form of social adaptation, e.g., for acquiring attitudes toward public issues. Such attitudes, however, are not acquired in a social vacuum. Their acquisition is a function of relating oneself to some group or groups, positively or negatively. In many cases (perhaps in all) the referring of social attitudes to one group negatively leads to referring them to another group positively, or vice versa, so that the attitudes are dually reinforced.

An individual is, of course, "typical" in respect to attitudes if the total membership group serves as a positive point of reference for that purpose, but "typicality" may also result from the use of other reference groups. It does not follow from the fact that an individual is "atypical" that the membership group does not serve for reference purposes; it may serve as negative reference group. Even if the membership group does not serve as reference group at all (as in the case of conservatives in this community who are unaware of the general freshman-to-senior trend), it cannot be concluded that attitude development is not a function of belonging to the total membership group. The unawareness of such individuals is itself a resultant adaptation of particular individuals to a particular membership group. The fact that such individuals continue to refer attitudes toward public issues primarily to home-and-family groups is, in part at least, a result of the kind of community in which they have membership.

In short, the Bennington findings seem to support the thesis that, in a community characterized by certain approved attitudes, the individual's attitude development is a function of the way in which he relates himself both to the total membership group and to one or more reference groups.

OUTLINE

A Research Orientation to Selection, Admission, and Differential Education

Paul Heist and Harold Webster

I. Social science research and educational institutions

  - Current picture
  - Issues and implications

II. Historical precedents to understanding students and student groups

  - Student personnel history
  - Contributions of test constructors
  - Test and measurement developments
  - Early research on students

III. Personality measurement and prediction

IV. Problems of modern methods of measurement

  - Assessment of growth and development variables
  - Objective evaluation of change

V. Student characteristics and admissions policies

  - Considerations and approaches

VI. Variations in student characteristics and differential treatment

  - Across institutional programs
  - Within the classroom

VII. An experimental approach to additional knowledge and new educational policy.

DISCUSSION QUESTIONS

A Research Orientation to Selection, Admission, and Differential Education

1. What leads and suggestions for institutional research on students may be drawn from the variety of studies conducted in the past two decades?

2. Are there possibilities of utilizing measures other than aptitude and achievement tests for the selection and placement of students? How would such use vary with type and size of institution?

3. Are the major personality characteristics of a student body an important consideration for selection, student welfare, and the academic atmosphere of an institution?

4. What are the relations between various kinds of personality measures (broadly conceived) and the commonly accepted goals of education?

5. How are the objectives and function of the college related to admissions policy and should the educational function of an institution determine admissions requirements - or, does the reverse apply?

6. What are the problems of communication between faculty, educators, etc., and research personnel who study the educational problems of the institution?

7. What degree of structure is feasible or advisable in large-scale educational research? Is there an argument in favor of "action," or applied research? Should carefully controlled experiments first be carried out and evaluated before making policy recommendations?

8. What are procedural steps in instituting an experimental approach to the selection of students and to a more comprehensive evaluation of their development?

2. Retention and Withdrawal

OUTLINE

Institutional Research on Retention and Withdrawal
Dorothy M. Knoell

1. Analysis of methodology of existing research on retention and withdrawal.
    a. By type of research approach
        (1) "Census" or counting studies
        (2) "Autopsy" or analysis of students who have failed or withdrawn
        (3) Case studies of individual students, classes, or institutions, involving follow-ups of varying length.
        (4) Prediction studies, relating admission variables to drop-outs and failures
    b. By criterion variable
        (1) Continuum of success-failure (grade-point average for semester, year, etc.)
        (2) Graduation
        (3) Academic probation and/or dismissal
        (4) Withdrawal in good standing
2. Significant findings from existing studies
    a. Normative
    b. Descriptive
    c. Relational
3. Needed research on retention and withdrawal
    a. Philosophical framework for evaluating withdrawals and dismissals.
    b. Classification system for withdrawals, in terms of success-failure, predictable - accidental, and remedial-nonremedial.

c. Early identification of potential withdrawals
    (1) Group survey techniques
    (2) Individual predictions
d. Remediation of potential withdrawals
    (1) Counseling techniques
    (2) Academic programming
    (3) Orientation-activities programming
e. Potential role of junior colleges in reducing withdrawal rates in senior institutions.

DISCUSSION QUESTIONS

Institutional Research on Retention and Withdrawal

1. What is the optimum retention rate which might serve as a realistic goal for the various types of collegiate institutions, with differing programs and admission standards?

2. What is the effect of rigid and/or very high standards for academic probation and disqualification on voluntary withdrawal rates?

3. Can (and should) students be matched with collegiate institutions in such a way as to reduce withdrawal rates, in terms of abilities, maturation levels, values, goals, family background, etc.?

4. What special attention should be given to the high voluntary withdrawal rate for women, particularly in the lower division of four-year collegiate institutions?

5. What should be done by the collegiate institutions for students who are dismissed for academic reasons, in terms of salvage for continuing education, development of healthy attitudes toward self and higher education, etc.?

6. How can the individual institutions plan studies designed to lead to the reduction of voluntary withdrawals?

7. What types of inter-institutional research should be undertaken, to find means of salvaging larger numbers of students with college interests and capabilities?

SUGGESTED READING

1. Material abstracted from A Master Plan for Higher Education in California, 1960-1975 (enclosed)

*2. "Improving the Prediction of Academic Achievement"
by Herman A. Spindt

*3. "Differential Prediction of Academic Success"
by Paul Horst

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*Appears in Selection and Educational Differentiation, Field Service Center and Center for the Study of Higher Education, 1960. You were given a copy of this publication at registration.

Abstracts from Section II, "Measures of the Validity of Entrance Requirements" from the Report of The Technical Committee on Selection and Retention of Students, a Master Plan for Higher Education in California, 1960-1975

A second measure of the validity of entrance requirements is continuance in school. Such studies take two directions: first, continuance from the date of entrance; and second, a "working backward", studying the characteristics of those who have persisted to a degree. Persistence to a degree or toward a degree is, in the minds of the Committee, a very questionable measure of the effectiveness of admissions criteria, because an excessively high proportion of students in public colleges withdraw from the college while still in satisfactory scholastic standing. In a paper prepared for a conference of admissions officers at De Pauw University, Spindt[1] reported on persistence to a degree or toward a degree as a measure of the validity of admissions criteria:

> "In addition to the first-semester grade point average as a criterion of academic success, persistence to a degree or toward a degree has been suggested as a good independent or supplementary measure. The reports on persistence, however, are not extensive enough to qualify it as an independent measure, and only very roughly as a supplementary measure. The Office of Relations with Schools, University of California, reports markedly higher persistence of junior college transfers among those with good high school scholarship than among those with poor high school scholarship. (A "B" average on academic courses was used as the dividing line[2] for good and poor high school scholarship). However, a reasonably high proportion of the two groups---49% of the first, 40% of the second---were in satisfactory scholarship standing at the time of withdrawal.
>
> "Seyler reports that for the students in the highest quarter of the high school graduating class entering the University of Illinois in September, 1950, 56.4% had earned a bachelor's degree before September, 1955, 31.66% of those in the second quarter, 17.05% of those in the third quarter, and only 8.24% of those in the lowest quarter. It should be noted that from 4.59% of the highest quarter to 7.65% of the lowest quarter were still registered in the fall of 1955. The honors records were fully as striking, with 21.62% of the top quarter, 6.67% of the second quarter, and none of the lower half. The same story appears on the probation list, but, of

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[1] Spindt, Herman A., The Future of Admissions, typescript, July, 1959.

[2] Office of Relations with Schools, University of California, A Comparison of the Persistence, Academic Performance, and Bachelors Degrees Earned by Native Students and Junior College Transfers Entering the University of California as Juniors, Fall, 1953, Berkeley and Los Angeles, mimeo, 1957.

course, in reverse---32.32%, 54.87%, 72.88%, 78.57%. The scholastic standing of drop-outs, however, raises serious questions as to the use of persistence as anything other than a supplementary requirement---in each of the four groups the numbers withdrawing while in good scholastic standing are respectively 262 out of 433, 139 out of 375, 62 out of 267, and 39 out of 143. Approximately the same value may be gained from the honors list[3] or the probation list, without using the withdrawal list at all.

"Persistence of a different type is shown in certain studies in the post-war period at the University of California. Students admitted to freshman standing under regular rules showed a 4% to 6% withdrawal during the first semester, while veterans admitted with deficiencies showed from 8% to 21%. Non-veterans admitted under regular advanced standing rules showed from 5% to 8% withdrawals in the first semester, veterans regularly admitted 7%, and veterans admitted with deficiencies from 9% to 12%. These figures, together with poor scholarship records and low correlations of previous scholarship and performance in the University, led directly to a limitation of the conditions under[4] which veterans could be admitted with deficiencies.

"The first semester withdrawals at the University of California in the years 1952-56 for freshmen regularly admitted added up to a total of 2.5% and for those admitted as exceptions to the rules, 6%; for junior college transfers the corresponding figures are 5% and 8%.[5]

"Iffert reports a heavy proportion of withdrawals for purpose of transfer to other colleges attributable to dissatisfaction with the first college or to change of curricular purpose. This is borne out by studies at Syracuse University. Iffert further gives considerable weight to family income, especially at the freshman and sophomore levels, to high school scholastic standing, to college placement tests, and to college grades.[6]

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[3] Seyler, E.C., A Study of the Entering Freshman Class of September, 1950, Office of Admissions and Records, University of Illinois, mimeo, 1955.

[4] Office of Admissions, University of California, Comparative Scholarship in Institution Previously Attended and First Semester in the University, 1946-48, photostat, 1948.

[5] Office of Admissions, University of California, Comparative Scholarship in Institution Previously Attended and First Semester in the University, 1952-56, photostat, 1956.

[6] Iffert, Robert E., "Dropouts; Nature and Causes; Effects on Students, Family, and Society." Current Issues in Higher Education, Proceedings of the 11th National Conference on Higher Education, 1956.

"Registrar's reports at the University of California for the year 1957-58 showed continuing students as 19% below a "C" average, 81% above; withdrawals showed 35% below a "C" average in their first semester, 65% above; of the withdrawals who had completed more than one semester, 34% were below a "C", 66% above a "C".[7]

"This cursory review of the academic status of students at the time of withdrawal leads to the conclusion that, so many factors other than academic success being involved, the use of probability of withdrawal would be rather dangerous as a basis for exclusion from or admission to a college. However, a method of admission that shows an excessive percentage of withdrawals for reasons of academic failure should be carefully studied by the college with a view to desirable adjustment. The problem of objective study is complicated by the difficulty of getting at the real reason for withdrawal as compared with the apparent or assigned reason."

The conclusion reached by Spindt in his report is substantiated by a report prepared by Miss Grace Bird, Associate Director of Relations with Schools, University of California.

* * * * * * * * * * * * * *

"The data presented in this memorandum are selected from studies made of three separate classes of freshmen entering the University by one of the regular methods of admission: Fall, 1948; Fall, 1949; and Fall, 1951. The studies inquired into persistence, performance, bachelor degrees earned, withdrawal and academic status at withdrawal. The first two classes were studied for the four general campuses of the University then operating. The third class was studied only for the Berkeley and Los Angeles campuses.

A. Retention Record of Students Entering the University of California As Beginning Freshmen

Table I shows that 55% of the students entering the University as freshmen are in attendance eight semesters later or have earned their degree earlier. The percentage persisting at Berkeley is about 7% greater than on the other campuses. The lower half of Table I indicates the percentage of original entrants earning degrees at specified times after entrance as beginning freshmen. For the one class for which data were assembled for all campuses, 35% had earned degrees eight semesters after the original semester.

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[7] Office of the Registrar, University of California, A Study of the Academic Characteristics of those Students Who Withdrew and Who Were Dismissed During the Year 1957-58, mimeo. October, 1958.

Table I Persistence and Bachelor Degree Record of Students Entering the University as Freshmen.

Persistence	Fall 1948 Entrants			Fall 1949 Entrants			Fall 1951 Entrants	
	All UC	B only	LA only	All UC	B only	LA only	B only	LA only
Number	2,921	1,462	1,109	2,817	1,435	1,040	1,462	1,069
8 consec. semes. or degree earlier	42.8%	47.6%	41.7%	43.7%	48.1%	42.5%	47.1%	44.0%
Re-entrants in attendance 8th	8.3%	10.0%	7.0%	6.9%	6.8%	8.4%	5.3%	5.9%
Transfers within UC attending 8th	4.5%	4.5%	3.2%	4.0%	4.7%	2.5%	5.3%	0.7%
Totals	55.6%	62.1%	51.9%	54.6%	59.6%	53.4%	57.7%	50.6%
Bachelor degree earned by 8th consec. semes.				34.6%	40.3%	29.7%	35.6%	27.6%
By 9th consec. semes.				6.4%	5.8%	8.0%	11.0%	15.1%
By 10th consec. semes.				no data	no data	no data	5.4%	4.2%
By 11th consec. semes.				no data	no data	no data	2.5%	1.9%
Total				41.0%	46.1%	37.7%	54.5%	48.8%

B. Withdrawal Record of Students Entering the University of California as Beginning Freshmen

1. Magnitude

Table II shows that about 45% of the freshman entrants to the University withdraw before completing the eighth semester following admission. About four-fifths of these withdraw before entering their junior year. Detailed information on withdrawals semester by semester is available in our files.

Table II. Withdrawal Record of Students Entering the University as Freshmen

Time of Withdrawal	Fall 1948 Entrants			Fall 1949 Entrants			Fall 1951 Entrants	
	All UC	B only	LA only	All UC	B only	LA only	B only	LA only
Number Enrolled	2,921	1,462	1,109	2,817	1,435	1,040	1,462	1,069
Before entering 5th semester	46.2%	40.8%	47.9%	46.9%	41.1%	48.8%	36.8%	44.3%
During upper division	12.9%	13.0%	12.8%	11.1%	13.0%	9.9%	16.1%	11.6%
Gross Withdrawals	59.1%	53.8%	60.7%	58.0%	54.1%	58.7%	52.9%	55.9%
Less early degrees re-entrants, intra-UC transfers	14.7%	15.9%	12.6%	12.7%	13.7%	12.1%	10.7%	7.4%
Net Withdrawals	44.4%	37.9%	48.1%	45.4%	40.4%	46.6%	42.2%	48.5%

2. Academic Standing at Withdrawal

More than half the Fall, 1951, entrants withdrawing from Berkeley before entering the fourth semester (54%) have cumulative grade-point averages of "C" or higher. However, 34% of the withdrawals by this time were in serious academic difficulties with grade-point deficiencies of six or more. Withdrawals thereafter were maintaining "C" averages or higher in 70% of the cases while 21% showed grade-point shortages of six or more. The All UC data for Fall, 1948, and Fall, 1949, differ very little from those cited for Berkeley. In summary, it can be said that about one-third of all withdrawals are below a "C" average at the time of withdrawal.

The high school grade-point average of students who withdrew with University averages below"C" was close to two-tenths of a grade-point below that of student withdrawals above a "C" average at the time of withdrawal. The data for Fall, 1949, entrants show:

	Berkeley			Los Angeles		
	C or above at UC	Below C at UC	Diff.	C or above at UC	Below C at UC	Diff.
HS GPA for:						
W after 1st semester	2.43	2.26	0.17	2.45	2.29	0.16
W after 4th semester	2.45	2.18	0.27	2.42	2.24	0.18

3. Classification of Withdrawals by Sex

More women students withdraw than men. The class entering Fall, 1949, showed that at Berkeley 47.8% of the original freshman men entrants withdrew before entering their eighth semester and 56.2% of the freshman women entrants. At Los Angeles the percentages were 48.4% of the original men entrants and 64.3% of the original women entrants.

Abstracts from Section IV, "Policies and Procedures in Retention and Classification of Students," from the Report of the Technical Committee on Selection and Retention of Students, a Master Plan for Higher Education in California, 1960-1975

Junior Colleges

Retention of Students

Probation.

1. Scholastic: All 56 junior colleges participating in the 1959 survey place students on probation because of low scholarship. This is a decided improvement over practices prevalent in 1954 when a similar study showed that 26 per cent of the junior colleges maintained no standards of scholarship in order to avoid probation or dismissal.

   There is great variation in the scholarship standard for probation as currently applied in California junior colleges. Two schools place students on probation if they fail two-thirds of units attempted; 19 colleges place students on probation if they fail to maintain a "C" average (2.0 grade-point average); 19 colleges place students on probation if their G.P.A. is below 1.50.

   The number of students placed on probation due to poor scholarship in 1958-59, ranged from zero in one college to more than 1,400 in another. Some colleges placed no students on probation, others placed more than 40% of those enrolled on probation because of low scholastic achievement. On an average (median), California junior colleges placed 18% of their October 31 enrollment on scholastic probation during 1958-59.

2. Misconduct: Fifty-four out of 56 colleges place students on probation because of misconduct. However, during 1958-59 only 18 colleges reported actually placing any students on probation because of misconduct.

Dismissal.

1. Scholastic: All 56 junior colleges reporting dismiss students because of poor scholarship. Two colleges actually dismissed no students while seven dismissed more than 180 during 1958-59, because of poor scholarship. The per cent of the enrollment to be dismissed ranged from zero to more than 20%. On an average (median) each junior college in 1958-59 dismissed 3.3% of students enrolled (as of October 31) because of low scholarship.

   Standards for dismissal because of low scholastic performance vary considerably among junior colleges. Most colleges dismiss students who fail to remove probationary status in one semester.

2. Attendance: Forty-one colleges have regulations for dropping students from class because of poor attendance. However, during 1958-59, only 19 colleges actually reported dropping students because of failure to attend class.

3. Misconduct: All but two of the 56 colleges maintain procedures for dismissing students because of misconduct. Actually, only 16 colleges dismissed any students because of misconduct during 1958-59.

Holding Power.

1. Dropouts: One of the criticisms leveled at higher education is the large drop-out rate of students. Junior colleges actually graduate a small portion of those admitted.

   The average (median) number of drop-outs per junior college in California in 1958-59 was 550 students. On an average, 24% of the unduplicated enrollment per college dropped out during the year.

2. Degrees Awarded: The average (median) number of A.A. degrees awarded per California junior college in 1958-59 was 212. This represents awarding A.A. degrees in numbers equal to 11% of the unduplicated enrollment.

   Few objective studies have been made giving comprehensive information on student persistence in junior colleges. In September, 1954, Orange Coast College completed a drop-out study involving 1,000 students who entered grade 13. Of this group, 610 completed the 13th grade, 460 entered grade 14, and 350 graduated from the 14th grade.

   Offhand, it might seem questionable that 65% of an entering class failed to graduate. It must be realized that there are many good reasons for students dropping out of junior college. Some justifiable reasons for leaving junior college prior to graduation are these:

   a) Obtaining good permanent job in occupational field of study.
   b) Joining armed forces.
   c) Moving to another locality.
   d) Transferring to another college.
   e) Getting married
   f) Encountering ill health.
   g) Encountering financial difficulties.
   h) Discovering that aptitudes and interests do not warrant continuance of college experience.

   The Orange Coast College study showed that 68% of the drop-outs were for reasons deemed justifiable and to the advantage of the student.

   The junior college, because of its peculiar role, should expect to have a reasonable large drop-out rate. It is a people's college where all may come to pursue education beyond high school; to remove deficiencies; to find themselves; to gain educational maturity; to obtain another chance. Traveling such paths will result in a definite number failing to complete all requirements for graduation.

State Colleges

Policies on Probation and Disqualification

Local policies for probation and disqualification are based on Administrative Code, Title 5, Education, Section 938, which reads as follows:

> "938. Probation or Disqualification for Scholarship. Any regular student who during any regular session, semester or quarter fails to maintain a scholarship average of at least 2.0 (grade C on five-point scale) may be placed on probation by the president of the college. Any regular student may be disqualified if the student fails to maintain a scholarship average of at least 2.0."

There is relatively little variance among the State Colleges in the establishment of standards for the local administration of the Administrative Code provision.s Students are placed on probation under the following conditions:

1. When the cumulative G.P.A. is less than 2.0;
2. When the G.P.A. for any given semester is less than 2.0.

One State College currently places students on probation on the basis of grade-point deficiencies, rather than G.P.A. Another uses a sliding scale, based on the total number of units attempted, for probation and disqualification. A third State College prefers to use the term "subject to disqualification" for students who would normally be on probation, to avoid confusion with non-academic probation. In general, any student whose average falls below "C: is automatically placed on probation for the following semester.

Students are subject to disqualification under the following conditions:

1. When the cumulative G.P.A. is less than 2.0 at the end of the first semester the student is on probation;
2. When the G.P.A. is less than 1.0 for any given semester;
3. When the grade-point deficiency reaches a certain level, based on total units attempted at the college or class level.

The colleges differ with respect to disqualification, insofar as some are able to use committees to review individual cases prior to disqualification, while others are forced to apply standards routinely. While individual review of cases is highly desirable before disqualification, shortages of staff, coupled with increasing enrollments, have made such action impossible at the largest colleges.

Students may apply for re-admission after one or two semesters of absence, following disqualification. Applications are reviewed carefully by a committee, for evidence of remediation of deficiencies which were responsible for the original disqualification. Colleges with routine disqualification, without individual review, are more likely to re-admit students who petition to be reinstated.

The study of standards for disqualification is under review continually. A number of changes have been made during the past year, and more are in prospect for the coming year.

University of California

Probation and Dismissal

Except for the Colleges of Engineering (Berkeley and Los Angeles) and the College of Chemistry (Berkeley), general rules covering probation and dismissal are uniform throughout the undergraduate colleges of the University; administration of the rules differ in the various colleges.

1. Probation (Letters and Science, Agriculture, Applied Arts)

> ". . .A student shall be placed on probation
> (a) If at the close of his first semester his record shows a deficiency of six or more grade points; or
> (b) If at the close of any subsequent semester, his grade-point average is less than one (a'C' average), computed on the total of all courses undertaken in this University for which he has received a final report."[16]

2. Dismissal (Letters and Science, Agriculture, Applied Arts)

> " . . .A student shall be subject to dismissal from the University
> (a) If during any semester he fails to pass with a grade of 'C' or higher courses totaling at least four units; or
> (b) If while on probation his grade-point average for the work undertaken during any semester falls below one (a 'C' average); or
> (c) If after two semesters of probationary status he has not obtained a grade-point average of one (a 'C' average), computed on the total of all courses undertaken in this University for which he has received a final report."[17]

3. "Subject to Dismissal" (Engineering and Chemistry)

Students who fall below a"C" average in any semester or summer session, or who fall below an overall "C" average, are subject to dismissal. The faculty may dismiss or retain on probation and may readmit dismissed students.

A survey of a small group of dismissed students showed that they had a 3.3 grade-point average in high school, as compared with an overall grade-point average for the whole freshman class. This small difference in the preparatory school record indicates that what goes wrong with the student may be external to either training or ability, and in the dismissed group are some students of exceptional ability. The loss of potentially capable students through questionable dismissal policies may represent a great social loss.

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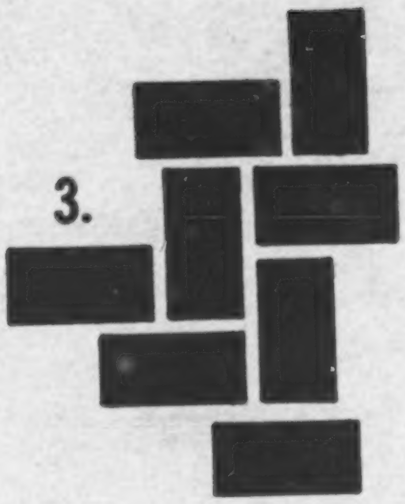

3.

Student Values and Attitudes

OUTLINE

Student Values and Their Relationship to the College Environment

George G. Stern

1. The role of the college in inculcating values.
    - Current Issues
    - Impact and Limitations
    - Methodological Problems
2. The measurement of attitudes, values, interests, and needs.
    - Definition of Terms
    - Conceptual Relationships
    - Measurement Tools and Techniques
3. Sources of attitudes, values, interests, and needs.
    - The role of the Teacher
    - The role of the Administrator
    - Student Peer-Groups
    - The Concept of Press
4. Relations Between College Environment and Student Personality
    - Varieties of Constraint in American Education
    - Sub-Cultural Variations in the Same Institution
    - The Measurement of Congruence Between School and Student
5. Implications
    - Developing an Academic Sense of Purpose
    - Knowing Today's Institution
    - Knowing Today's Student

DISCUSSION QUESTIONS

Student Values and Their Relationship to the College Environment

The College Impact

What are legitimate educational objectives regarding student values?
Who formulates such objectives within the college?
What does the college do to achieve objectives which involve values?
How effective are these techniques?
In what ways might they be modified?

The Measurement Problem

What do we mean by values, attitudes, interests, personality needs, motives, etc.?
What are these terms intended to connote? denote?
What kinds of techniques and measuring devices are useful in this connection?

The College Environment

What are some of the ways in which to describe the college environment?
How do today's students and faculty differ from their predecessors?
What is the significance of these differences for higher education?
What are the long-term social implications of these changes?
What problems should our colleges be preparing to face?
What kinds of research activities should we be undertaking now, in anticipation of these new problems?

SUGGESTED READING

1. "An Approach to the Measurement of Psychological Characteristics of College Environments"
   by C. Robert Pace and George G. Stern (enclosed)

2. "Higher Education and Student Values"
   by Thomas S. Hall (enclosed)

*3. "The Development of Maturity of Personality in College"
   by Nevitt Sanford

4. "Social Change and Student Values"
   by Philip E. Jacob, and Discussion by Joshua A. Fishman, in _Social Changes and the College Student_, American Council on Education. (Copies handed out at registration)

5. _Studying the Effects of College Education_
   by Allen H. Barton (Copies handed out at registration)

6. _Value Conviction and Higher Education_
   by John E. Smith (Copies handed out at registration)

7. "Student Capabilities for Liberal Education"
   by Philip E. Jacob, in _Spotlight on the College Student_, American Council on Education (Copies handed out at registration)

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*Appears in _Selection and Educational Differentiation_, Field Service Center and Center for the Study of Higher Education, 1960. You were given a copy of this publication at registration.

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AN APPROACH TO THE MEASUREMENT OF PSYCHOLOGICAL CHARACTERISTICS OF COLLEGE ENVIRONMENTS[1]

C. Robert Pace and George G. Stern
Syracuse University

The present article considers the idea that college cultures may be seen as a complex of environmental press which, in turn, may be related to a corresponding complex of personal needs. In the psychological literature, one is indebted to Henry Murray (5) for the dual concept of personal needs and environmental press. In the broadest sense, the term "need" refers to denotable characteristics of individuals, including drives, motives, goals, etc. The term "press" can similarly be regarded as a general label for stimulus, treatment, or process variables. Murray's concept of needs has provided a starting point for the construction of various objective measures of personality (2, 3, 4). No parallel development in the objective measurement of environmental press, however, has previously been attempted. College students differ. College environments also differ. The concept of press offers a way of viewing the environment which is comparable analytically and synthetically to the more familiar ways of dealing with the individual.

Development of the College Characteristics Index

Using Murray's classification of needs as a model, Stern has constructed several experimental editions of a needs inventory, called the Activities Index. In its current form the Activities Index consists of 300 statements of commonplace, socially acceptable activities to which responses of "like-dislike" are given. There are 30 scales of 10 items each, corresponding to 30 needs in Murray's taxonomy. Some scales can be scored positively or negatively, as for example conjunctivity-disjunctivity, succorance-autonomy, impulsion-deliberation, etc., so that the total number of needs to which scores can be attached is 42 rather than 30. A preliminary manual for the Activities Index describes the test in detail (8).

A corresponding test for describing college environments, called the College Characteristics Index, was subsequently constructed. It consists of 300 statements about college environments to which responses of "True-False" are given. The statements are organized into 30 ten-item scales, with a press scale for each need scale that was included in the Activities Index. The following kind of questions guided the writing of items: what might be characteristic of an environment which exerted a press toward order, or toward autonomy, or toward nurturance, or understanding, or play, etc? Stated in

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[1] Portions of this research have been financed by grants from the College Entrance Examination Board and the Carnegie Corporation

another way, what might there be in a college environment which would be satisfying to or tend to reinforce or reward an individual who had a high need for order, or autonomy, or nurturance, or understanding, or play, etc.? The items themselves are statements about college life. They refer to the curriculum, to college teaching and classroom activities, to rules and regulations and policies, to student organizations and activities and interests, to features of the campus, etc.

Sample items from corresponding Need and Press scales will illustrate the parallelism.

A need for Order would be inferred from liking such activities as: "Arranging my clothes neatly before going to bed. Having a special place for everything and seeing that each thing is in its place. Keeping a calendar or notebook of the things I have done or plan to do." What might such a person like to find in a college environment or what features of a college environment might be rewarding or frustrating to such a need? The following items from the press scale for Order might be relevant: "Faculty members and administration have definite and clearly posted office hours. In many classes students have an assigned seat. Professors usually take attendance in class."

On the need scale for Impulsion-Deliberation, a high score for Impulsion results from liking such activities as: "Being in a situation that requires quick decisions and actions. Doing things on the spur of the moment. Doing whatever I'm in the mood to do." Thus, a college environment which has a press toward impulsiveness might be a place where: "Most students don't decide what courses to take until the time of registration. Students often start projects without trying to decide in advance how they will develop or where they may end. Spontaneous student rallies and demonstrations occur frequently."

A high need for Energy is inferred from liking such activities as: "Taking up a very active sport. Having something to do every minute of the day. Giving all of my energy to whatever I happen to be doing." The needs of such a person might be expected to find fulfillment and satisfaction in a college environment where: "There is an extensive program of intramural sports and informal athletic activities. Student gathering places are typically active and noisy. Class discussions are typically vigorous and intense."

Just as needs are inferred from the characteristic modes of response of an individual, so press are reflected in the characteristic pressures, stresses, rewards, conformity-demanding influences of the college culture. Operationally, press are the characteristic demands or features as perceived by those who live in the particular environment. To each statement in the College Characteristics Index the person who takes the test answers true if he believes it is generally characteristic of the college, is something which occurs or might occur, is the way people tend to feel or act; and he answers false if he believes it is not characteristic of the college, is something which is not likely to occur, is not the way people typically feel or act.

A Study of Five Institutions

A first draft of the College Characteristics Index was administered in May, 1957, to groups of students at five institutions and to smaller groups of faculty members at four of the five institutions. In all, 423 students and 71 faculty members responded to the instrument. Neither student nor faculty groups were representative samples. Most of the students were upperclassmen and most of the faculty members were in the upper academic ranks. It was argued that if a dominant press really exists in a particular environment almost any group of people living in the environment would probably identify it. The testing program was, in any case, intended only as a preliminary try-out of the model from which some information would be gained about the types of items, the possible reliability and validity of the scales, and the potential utility of this approach to measuring college characteristics.

The five institutions, although not identified here, were selected because observers would probably agree that they are rather different from one another, with the selection of colleges thus providing some evidence about the construct validity of the test. One was a large Midwestern state university. The second was a large Midwestern private university. The third institution was a large Eastern private university. The fourth was a moderate-sized Eastern private college for men. The fifth institution was a publicly supported college in the metropolitan New York area.

Test Results

Saying that a particular press is or is not characteristic of an institution is an arbitrary matter. There exist no conventions or experience to guide the decision. The basis for the tentative decisions that were made, together with other statistical information about the scales and the items are given in the following paragraphs.

In examining means, or a profile on which mean scores are plotted, one naturally looks for what appear to be high and low points. And in examining variances of distributions, in the context of press identification, one naturally looks for some concentration of scores or a low variance, suggesting a consistency of impression, rather than a wide dispersal of scores, suggesting divergent impressions about the press.

Table 1 shows the means and standard deviations on each of the press scales, computed from the students' responses at the five institutions studied. Each of these 30 scales has a maximum possible range of 0 to 10. The median of these mean scores is approximately 5.5. The median of the standard deviations is approximately 1.7. Putting this information together, one might suggest that, for the five institutions represented, a fairly reasonable definition of a noticeable press (or its absence) would be one which required a mean score falling in the upper or lower one fourth of the total distribution. Mean scores of 6.6 or higher and mean scores of 4.4 or lower would thus be suggestive of a press. In Table 1, means which meet this criterion are underlined.

TABLE 1

MEANS AND STANDARD DEVIATIONS ON THE VARIOUS PRESS SCALES FROM STUDENTS' RESPONSES AT FIVE INSTITUTIONS

Press Scales	College A (N=100)		College B (N =44)		College C (N = 100)		College D (N= 68)		College E (N=111)	
	$\bar{M}$	SD	$\bar{M}$	SD	$\bar{M}$	SD	$\bar{M}$	SD	$\bar{M}$	SD
Abasement	4.0	2.2	3.6	1.7	3.3	1.9	3.4	1.7	4.3	2.1
Achievement	4.9	1.9	5.3	1.4	4.4	1.9	5.4	1.9	5.5	1.8
Adaptiveness	6.3	1.8	7.9	1.4	6.9	1.5	6.3	1.5	5.3	1.0
Affiliation	5.4	2.0	5.6	2.2	5.8	1.7	4.2	2.1	3.8	2.0
Agression-Blameavoidance	4.4	1.9	5.8	1.4	5.6	1.6	4.7	1.6	3.5	2.0
Change-Sameness	5.6	1.3	7.1	1.4	5.1	1.7	5.1	1.4	4.8	1.4
Conjunctivity-Disjunctivity	6.7	2.0	5.8	2.3	7.4	1.7	5.8	2.1	6.9	1.9
Counteraction	6.1	1.4	6.5	1.4	5.0	1.5	5.4	1.6	5.9	1.4
Deference	5.6	1.7	5.1	1.4	5.6	1.7	5.4	1.4	5.5	1.5
Dominance	5.5	1.5	3.5	1.5	4.9	1.7	5.7	1.6	4.3	1.8
Ego-Achievement[a]	6.9	2.0	5.2	1.5	5.6	1.7	6.9	1.8	4.9	2.2
Emotionality-Placidity	6.3	1.5	5.8	1.6	6.3	1.5	5.9	1.9	5.3	1.8
Energy-Passivity	5.1	1.9	6.0	1.7	4.4	1.8	5.0	1.6	4.8	1.7
Exhibitionism	6.7	1.7	5.8	1.6	6.2	1.4	6.3	1.5	5.6	1.8
Fantasied Achievement[b]	6.0	1.8	6.5	1.6	5.7	1.6	4.6	1.7	5.7	1.6
Harmavoidance	4.7	1.5	4.8	.9	3.4	1.3	3.9	1.3	5.5	1.5
Humanism[c]	5.7	1.9	8.5	1.3	6.0	1.8	6.8	1.8	6.6	2.0
Impulsion-Deliberation	3.5	1.5	4.3	1.5	4.1	1.5	4.2	1.3	3.3	1.4
Narcissism	5.8	1.5	3.2	1.3	3.8	1.6	5.3	1.7	5.5	1.7
Nurturance	7.4	1.6	5.8	1.8	6.7	1.7	6.9	1.7	6.5	1.7
Objectivity-Projectivity	6.6	1.9	8.1	1.4	7.4	1.9	6.7	1.9	6.4	2.1
Order	7.3	1.5	3.3	1.5	5.8	1.4	6.2	1.4	7.1	1.3
Play	7.4	1.5	3.8	1.6	6.1	1.4	7.8	1.6	5.9	1.9
Pragmatism[d]	4.6	1.6	1.7	1.1	4.9	1.6	4.7	1.5	3.8	1.6
Reflectiveness[e]	5.5	1.9	8.0	1.4	4.9	1.9	5.5	1.9	5.6	1.9
Scientism[f]	6.3	1.9	8.4	1.5	5.1	2.0	6.5	2.0	6.5	1.7
Sentience	5.3	1.8	6.5	1.5	3.5	1.6	5.2	2.0	5.0	1.8
Sex	6.2	1.4	4.9	1.5	5.7	1.3	7.0	1.3	4.7	1.3
Succorance-Autonomy	5.8	1.3	4.6	1.6	5.2	1.4	5.1	1.9	5.1	1.6
Understanding	4.8	1.8	8.6	1.2	5.1	1.7	4.7	1.6	5.8	1.8

[a] Derived from Exocathection-Intraception.
[b] Derived from Ego Ideal.
[c] Derived from Endocathection-Extraception: Social Sciences and Humanities.
[d] Derived from Exocathection-Extraception.
[e] Derived from Endocathection-Intraception.
[f] Derived from Endocathection-Extraception: Natural Sciences.

A corresponding table showing faculty means and sigmas is not presented, mainly because the number of cases is quite small--Ns being 25, 20, 11, and 15. Also, from an educational view, it may be argued that the effective press of an environment is what the students say it is, not what the faculty say, or what the catalogue says, etc. Nevertheless, in the four colleges where both student and faculty responses to the CCI were obtained it is of some pertinence to note their similarity. Table 2 shows a distribution of the differences between the means of students' and faculty responses in each institution and also the differences between faculty and student responses to individual items. Here it is evident that most of the differences are fairly small. In nearly half of all the comparisons between faculty and student mean scores the difference between the two was less than half a point. Three fourths of all the differences were less than 1.00. Differences between faculty and student responses to individual items are grouped in three arbitrary categories. Thus, 44% of all the items answered by students and faculty were answered within a range of agreement of 10 percentage points or less; and on 12% of the items the percentage for the students' answer differed by 30 points or more from the percentage for the faculty's answer. Considering the number of cases in all groups, one can be confident that differences of 10 points or less are in all instances merely chance differences, and that differences of 30 points or greater may in most instances be significant differences at least at the 5% level of confidence. It appears then, that some of the differences in the middle category of the table are chance differences and some are significant differences. One might estimate that, over all, about three fourths of the items were answered in tolerably good agreement by both students and faculty, and that perhaps as many as one fourth of the item responses represent divergent views between students and faculty in characterizing the institution.

Reliability

Test-retest data are not available in the present study. Conventional estimates of reliability from a single administration may not be appropriate for an instrument on which one hopes to find skewed distributions and minimal dispersion of scores. Faculty-student agreement within the same institution is of some relevance but one might argue that the perceptions of these two groups could differ on individual items or scales, yet each could be reliable within itself.

Item analysis data are more directly relevant to the reliability of scales. An item analysis was made of each scale, separately for each of the five institutions, using the students' responses. Ebel's (1) simplified method was used. Each of the 30 scales was thus subjected to item analysis in five different samples, and since there are 10 items in each scale, the total number of item discrimination indexes obtained was 1500. Of these 1500 discrimination indexes, 1% were negative, 18% fell between .0 and .19, 30% fell between .20 and .39, and 51% were .40 or higher. In other words, 81% of the items had, on the average, moderate to high discrimination in their respective scales.

Perhaps the most important approach is one which treats reliability and validity as inseparable and deals with the instrument as a whole. For example, do different people characterize the institution in the same way? This involves the reliability of profiles, with all their interrelationships. As a first approximation of this, the rank order of mean scores from the students' responses can be compared with the rank order of mean scores from faculty responses within the same institution. Thus, do these groups see the institution in relatively the same pattern? For the two colleges (Colleges B and C) which had the largest number of faculty respondents, these rank order correlations were .96 and .88. Correlations were not computed for the other two colleges where faculty mean scores would be based on Ns of 15 and 11.

Validity

To illustrate the sort of interpretation and description of a college environment which can be derived from the CCI, the press of two colleges are presented. The comments are based entirely on the arbitrary definitions of what levels of scores constitute a press (which was explained earlier); and the nature of these press is further illustrated by citing some of the specific items which most clearly define them. No estimate is presently available of the validity of these descriptions against a systematic outside criterion.

TABLE 2

SUMMARY OF DIFFERENCES BETWEEN FACULTY AND STUDENT RESPONSES WITHIN EACH OF FOUR INSTITUTIONS

Mean Differences in Scale Scores	Number of Differences	Cumula-tive Per Cent
.0 to ± .49	57	48%
±.50 to ± .99	34	76%
±1.00 to ± 1.49	23	95%
±1.50 to ± 1.99	6	100%
	120	
Percentage Differences in Responses to Individual Items		
10 percentage points or less	528	44%
Between 11 and 29 points	528	88%
30 points or more	144	100%
	1200	

But the descriptions show quite clearly that these are very different environments, and that the test is therefore capable of revealing some sharp distinctions between colleges which qualified observers would expect to be different. The evidence is therefore relevant to the property of validity. Detailed data, and descriptions of the other three colleges, may be found elsewhere (7).

College A

The major press in College A are toward orderliness and friendly helpfulness, with overtones of spirited social activity. This is suggested by high scores on the scales for Order, Objectivity, Conjunctivity, Nurturance, Play, Ego Achievement, Exhibitionism, and by low scores on the scales for Abasement, Impulsion, and Aggression.

The stress on Order, Deliberation (opposite of Impulsion), and Conjunctivity is indicated by such highly shared observations as the following: students have assigned seats in some classes, professors often take attendance, papers and reports must be neat, buildings are clearly marked, students plan their programs with an adviser and select their courses before registration, courses proceed systematically, it is easy to take clear notes, student activities are organized and planned ahead.

Within this orderliness, student life is spirited and a center of interest. For example, big college events draw lots of enthusiasm, parties are colorful and lively, there is lots to do besides going to classes and studying, students spend a lot of time in snack bars and in one another's rooms, and when students run a project everyone knows about it.

At the same time, amid this student-centered culture, there is a stress on idealism and service. Students are expected to develop an awareness of their role in social and political life, be effective citizens, understand the problems of less privileged people, be interested in charities, etc.

The total picture of the environment, then, is one of high social activity, esprit de corps, and enthusiasm combined with an emphasis on helping others and idealistic social action and all within a fairly well understood set of rules and expectations which are deliberative and orderly. One would expect some of the explicit objectives of such an institution to stress personal and social development, idealism and social action, and civic responsibility.

College B

Here the dominant press of the environment fall in the theoretical-intellectual category--Reflectiveness, Humanism, Scientism, Understanding, and Objectivity. This dominant press occurs in an environment also characterized by Change, nondefensive acceptance of criticism (Adaptiveness), and by resistance to any abject acceptance of criticism or presumed low status (Abasement). Moreover, on two of the scales which defined a high press at College A (Play and Order), the press at B is exactly opposite. There is further, a minimum of importance to social status or manipulation for tangible ends (Pragmatism) preoccupation with self and personal appearance (Narcissism), and bossing or directing others (Dominance). There is, however, a generally consistent and high press toward Deliberation or planning and thinking ahead.

It is clear that the most pervasive press is directed toward the pursuit of understanding for its own sake, abstract and unencumbered by requirements for practical utility or social action.

The theoretical-intellectual press of the environment at College B is more specifically suggested by the following observations with which, generally, more than nine tenths of both faculty and students agree: there are excellent library resources in natural science and social science, a lecture by an outstanding philosopher or scientist would draw a capacity audience, many students are planning graduate work or careers in science or social science, there are many opportunities for students to see and hear and criticize modern art and music, reasoning and logic are valued highly in student reports and discussions, students who spend a lot of time in a science laboratory or in trying to analyze or classify art or music or in seeking to develop a personal system of values are not regarded as odd, scholarship and intellectual skills are regarded as more important than social poise and adjustment, there is time for private thought and reflection, one need not be afraid of expressing extreme views, the faculty and administration are tolerant and understanding in interpreting regulations.

In contrast with College A, students at B do not have an assigned seat in class, professors do not take attendance, students are likely to study over the weekend, big college events draw no great enthusiasm, and the place is not described as one where "everyone has a lot of fun."

Moreover, student leaders have no special privileges, family status is not important, students are not much concerned about personal appearance and grooming, and an intellectual is not an "egghead."

And finally, exams are not based on factual material from a textbook, classes are not characterized by recitation and drills, grade lists are not publicly posted, students are not publicly reprimanded for mistakes, student organizations are not closely supervised, students tend to stay up late at night, work all the harder if they have received a low grade, and if confronted with a regulation they do not like they will try to get it changed.

One would expect the explicit objectives of such an institution to stress the acquisition of knowledge and theory, critical judgment and independence, and a sense of the significance of intellectual life.

Other Differences Between Colleges

That College A and College B are quite different environments can be suggested statistically as well as in the descriptive profiles just presented. The rank order of mean scores for College A correlates, for example, .06 with the rank order of mean scores for College B. One can also estimate, without computing, the significance of the differences between the mean scores of College A and College B on each of the 30 scales. Given Ns of 100 and 44, and standard diviations as large as 2.00, a difference of 1.00 is significant well beyond the 1% level of confidence. On at least 22 of the 30 scales, the differences between means for the two schools are significant. Considering all five schools, it is clear that on every scale except one (Deference) there are significant differences between two or more of the mean scores.

Another indication of differences can be obtained from noting the differences between the percentages of students at Colleges A and B answering each item according to the key. In the middle range of percentages a difference of 20 points, with Ns of 100 and 44, is always significant beyond the 1% level. On this conservative basis there were 172 of the 300 items on which the percentages for College A differed significantly from College B.

The point to these observations is merely to suggest that the first trial run of the CCI produced many results which clearly differentiated among the environments or press of the five colleges. The actual items in the CCI are not reproduced here because there seems little virtue in printing a first draft. The content of many items has been, of course, indicated in the descriptive profiles of the two colleges and in the earlier paragraphs which noted the parallel structure of Need items and Press items.

Conclusions and Implications

After completing the preliminary studies reported thus far, a revised form of the College Characteristics Index was produced in which 58% of the original items were retained, 13% were slightly modified, and 29% of the items were new. The revised form, at the time of writing this article, has been administered to approximately 1200 students distributed among more than 30 institutions. Further research and more intensive analyses have been planned. Before commenting on specific plans, however, certain broad values and implications in this psychological approach to the measurement of college environments are suggested.

One potential value, for example, is in institutional self-analysis. Administrators and faculty members should be able to learn something useful about the dynamics of the college environment from studying students' responses to the College Characteristics Index. Institutional press should have some clear relationship to institutional purpose. The objectives of a college are formal or explicit statements of intent: they indicate the directions in which a college means to influence the behavior of students. They find expression in curricula, practices, services, policies, and other aspects of the college environment. The press, as measured by the method described, constitute what Stern, Stein and Bloom (9) have referred to as an operational definition of objectives, or the implicit influence of the environment upon the students. Implicit press and explicit objectives should reinforce one another, for an institution should operate in reality the way it means to operate in theory. Consequently, a serious lack of congruence between implicit press and explicit objectives would suggest to faculty members and administrators that certain aspects of the environment ought to be changed in order to make the total impact of the institution more consistent or more effective. Pace (6) has commented elsewhere on the disintegrative effect of discrepancy between stated objectives and actual practices.

Some aspects of an environment can be changed more readily than others. The College Characteristics Index provides some direct indications of the psychological implications of various policies and practices. Roughly, one fourth to one third of the items in the Index state specific practices which an administration or faculty could more or less easily change if they did not like the implications. For example, being able to drop a course in which one is having difficulty, or to substitute another course for one which has been failed, is associated with Counteraction; insisting that students' reports or papers be neat, or giving students an assigned seat in class, or taking attendance regularly, is associated with Order. As the relationships among press variables and between these variables and institutional objectives as well as personal needs are established, the significance of such specific practices will become clarified. Other items in the Index are more indirect in their implications about the effect of various policies or practices. But the clues can be investigated and can thus be the starting point for serious discussions about the impact of the environment on the student and the relation of this impact to the intended objectives.

Another set of implications from this approach to describing college environments relates to the problem of assessment and prediction. Assessment studies have often failed because the situations or environments in which assessed modes of behavior were supposed to occur have been inadequately described or differentiated. The interaction between person and environment was not successfully predicted because the environment was not measured as analytically and systematically as the person. The whole field of college prediction studies provides a good example. The criterion is typically a grade point average. No fundamental improvement in predicting against this criterion has been made in the last 25 years. Prediction studies should be concerned with performance in the environment as a whole. The complexity of relationship between person and environment is inevitably obscured by the simplified and often inappropriate symbolism of correlation between scholastic aptitude test and grade point average.

The press of a college environment represents what must be faced and dealt with by the student. It is possible that the total pattern of congruence between personal needs and environmental press will be more predictive of achievement, growth, and change than any single aspect of either the person or the environment.

It will be a long time before admissions officers or guidance counselors can benefit from the results of these more complex analyses. This requires the establishment of known relationships between kinds of persons and kinds of environments. But conceivably, advisers within an institution may be better able to help students find an effective and rewarding role within the operative environment of the college, or to see more clearly the ways in which environments need to be modified if different kinds of students are to grow within them most effectively.

As further steps toward refining and exploring the potential of this needs-press concept, as examplified by the Activities Index and the College Characteristics Index, the following studies, among others, are in progress:

1. Statistical studies of the instrument (CCI), including test-retest reliabilities, correlation matrix of all scale scores, factor analysis, item covariances.

2. Comparative studies of types of items, subjective or impressionistic versus relatively objective or factual.

3. Studies of the relations between students' needs scores and the corresponding perception of press in the environment.

4. Analysis of perception of press among various sub-cultures within a complex institution.

5. Significance of congruence between Need and Press in determining successful performance and/or satisfaction in the college environment.

SUMMARY

The present article has suggested that a college environment may be viewed as a system of pressures, practices, and policies intended to influence the development of students toward the attainment of important goals of higher education. The first draft of an instrument for measuring these influences systematically has been constructed. Data analyzed thus far reveal significant differences in the press of different college environments. The instrument itself, which has subsequently been revised, appears to be promisingly reliable and valid. In the long run, research which this type of instrument makes possible should increase understanding of the ways in which institutions make their impact upon students and provide a broader conceptualization for evaluating the effectiveness of higher education.

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HIGHER EDUCATION AND STUDENT VALUES*

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Introductory note:

There is a wave of excitement in educational circles just now about the values of college and university students.

Much of this excitement has been generated by published investigations suggesting that college and university faculties affect student values only negligibly or not at all. Not all of the investigations agree completely with that conclusion, of course, but the agreement is sufficient to have provoked discussion of the following questions: what do we really mean by "values"? how are values acquired, and what is the proper role of higher education in this process? what are the implications of the present world-picture for the values of American students? what new directions are suggested for the organization of learning?

Definition of value: value and freedom

"Man," states Jean Paul Sartre, "is condemned to be free."

This is Sartre's gloomy manner of calling attention to the immense and inescapable responsibility which freedom imposes. Indeed, at this moment of history when civilization finds itself compelled to choose between survival and suicide, man's responsibility seems almost overwhelming.

Freedom and values go together. The choices of an individual, or a society, are not completely chaotic, but display a measure of consistency. A particular individual does not ordinarily prefer baseball (or abstract expressionism, or bland food, or monogamy) on Monday and despise them on Tuesday. Nor does he ordinarily prefer Keats and despise all other manifestations of romanticism. If he did so, we should say that he lacked an ordered pattern of values. Values are the canons of preference that order the choices of free men.

How values are acquired

Society imparts values to individuals sometimes subtly and indirectly, sometimes directly and overtly.

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At the one extreme, the recipient is essentially passive: he soaks up values by a process of cultural, or subcultural, osmosis. Half unconsciously, he mimics individuals or groups whom he admires and by whom he hopes to be accepted. In so doing, inadvertently, he makes their values his own. In adolescents such mimetic adaptation is a powerful plasticizing force.

At the other extreme, the recipient is the target of deliberate, explicit indoctrination. His values are not soaked up but hammered in. The most powerful instruments in this process are specific institutional codes--the codes of government, of religion, and of homogeneous organized groups-such groups as the professions with their codified ethics or, to cite a very different example, the boy scouts (scout "oath," scout "law").

The clever propagandist, incidentally, knows how to make a vigorous hybrid monster out of the above two processes, since the indoctrination of values is a quite deliberate act on his part but that fact is not always clearly recognized by the recipient. Here, clearly, is a problem for the educator.

The social scientist uses the term acculturation to refer to the two processes just mentioned. But acculturation comes far from telling the whole story. For values are also acquired from the impact of raw experience affecting different individuals in different ways. The accident of poverty, for example, or of emotional deprivation may conduce to different values than the accident of affluence or emotional requirement. But the precise effect will depend upon individual differences which may be, in the first instance, hereditary. One of the most satisfying cultural characteristics of free societies, therefore, is the complementarity of ruggedly individualized values harmonized and held in balance by the force of acculturation.

Values and higher education

Many higher educators approach the whole question of student values with a certain diffidence, or philosophic neutrality. "Please let us teach physics (or Chaucer, or differential equations)," they entreat, "and do not subject us to all sorts of adventitious educational objectives." Even these educators, however, will agree that for teaching to reach its highest expression considerations of value are inescapable. Two values in particular--one ethical, one esthetic--are intrinsic to learning itself. These are the values of intellectual integrity and intellectual enthusiasm. If they are absent from the classroom, and sometimes they are, the value of learning is lost.

Some higher educators, more philosophically venturesome than those just described, deduce educational practice from an a priori image of something they call the liberally educated man. This man, in their image, is "value-minded." He worries about values--his own and other people's. His own values tend to be explicit and highly differentiated. He acquires them personally through deliberate contemplation and self-examination. Throughout life, on this view, the values of the liberally educated man are continually perfected and revised.

This kind of thinking has had an impact on the organization of higher education, including the assignment of curricular priority to such humanistic studies as philosophy, intellectual history, and literary and artistic criticism. And in certain institutions it has affected the way in which the social and natural sciences are taught.

Whether the educator's objective is the informal encouragement of integrity and enthusiasm or a calculated cultivation of value-awareness, the studies reviewed by Jacob and others suggest that success is imperfect at best. Why?

Cultural polarity of the campus

No society has gone farther than as ours in creating an adolescent subculture with powerful value systems of its own. Students entering college are the graduates not only of a curriculum but also of a civilization--the civilization of emancipated adolescence.

All the same, college faculties have an opportunity with students just entering from school, since such students usually expect and are ready for change. There is a brief sensitive period during which much could be achieved. That more is not is explained partly by the fact that two new systems of value confront the entering student and compete for his attention.

There is, first, the numerically massive and esthetically attractive society of his fellow undergraduates--inviting because of its familiarity and wealth of psychological niches. And there is, second, the numerically concentrated and esthetically esoteric society of the faculty. The one serious and exhaustive study of competitive interaction between these two societies, made at a very good college, showed that the student society was overwhelmingly victorious.

Such studies suggest that the major obstacle confronting us is the cultural polarization of the milieu in which we are endeavoring to realize our goals. From this point of view our problem is the formidable but perhaps not insoluble one of the cultural depolarization of the campus.

To make this statement is merely to recognize, and not to solve, a problem. But if this way of posing the problem proves valid, we shall have taken the necessary first step toward its solution, and we can be thankful to the social scientists who have brought it to our attention.

World picture and student values

Societies differ with respect to the pattern of distribution of freedom. In comparatively aristocratic societies, such as that of the Soviet Union, we need to be especially concerned about the values of the few in whom freedom is concentrated. In relatively democratic societies, such as ours, someone--the higher educator, among others--needs to be concerned about the values of the many through whom freedom expresses itself.

One of the most challenging revelations of very recent history is the demonstration that a society in which freedom is relatively concentrated can cope with the complexities of a technologically-based social order as vigorously as a society in which freedom is dispersed. This challenge is sharpened by the very fact of technological progress. Thomas Malthus warned of the difficulties stemming from an exponential rise in the population accompanied by only an arithmetical increase in technology, especially the technology of food production. The modern world is confronted with a related but different danger stemming from an exponential increase in technology accompanied by--at best--an arithmetical increase in man's ability to cope with its consequences. The margin of permissible error has been narrowed to the point where single false choices can have catastrophic results.

In our society, where the pattern of distribution of freedom is broad, we have to delegate certain aspects of decision-making temporarily to elected representatives. But decision ultimately belongs, and must continue to belong, to the many rather than the few. If there is a tendency, as some social scientists believe, for power to become permanently concentrated in elite groups, that tendency must be sternly resisted. It is, whether the prospect pleases or not, with our students that the crucial choices will lie. The present world-picture gives these choices, and the canons of preferences on which they are based, an unprecedented importance.

4. Student Society

OUTLINE

The Campus Viewed As a Culture

Martin A. Trow

Much of the recent interest of social scientists in college students has focussed on their values, attitudes, and socialization within college. There has been relatively less concern with the broad social determinants of student sub-cultures; these lie in the occupational structure for which students are preparing, the class and ethnic sub-cultures from which they come, and the organization and purposes of the colleges which they attend. Four commonly recognized orientations toward college on the part of students are the academic, the collegiate, the vocational, and the non-conformist. A number of related trends and forces in American society and in higher education are currently working to strengthen the vocational orientation. The Cold War, the growth of managerial and technical occupations requiring advanced training, the increasing numbers of students from culturally impoverished origins attending large public colleges and universities, the impersonality of faculty-student relations on these campuses, all tend to emphasize the instrumental character of college as a source of saleable skills and degrees. Given these tendencies, a central problem posed by the development of mass higher education is the support that colleges can give to student cultures which contribute to rather than inhibit the liberal education of their members.

DISCUSSION QUESTIONS

The Campus Viewed As a Culture

1. What type of research can a college conduct which will result in useful data on student sub-cultures?

2. How can various aspects of a college--physical plant, management, teaching methods, etc.--be altered to produce sub-cultures favorable to quality education?

3. What roles should (a) deans of men, women, students; (b) personnel and guidance officers; (c) institutional researchers; (d) admissions officers and registrars play in studying and influencing student sub-cultures?

SUGGESTED READING

*1. "College Subcultures and College Outcomes"
by David Riesman

*2. "Cultural Sophistication and Higher Education"
by Martin Trow

3. "Student Cultures and Faculty Values"
by David Riesman, in Spotlight on the College Student, American Council on Education (Copies handed out at registration)

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*Appears in Selection and Educational Differentiation, Field Service Center and Center for the Study of Higher Education, 1960. You were given a copy of this publication at registration.

5. Institutional Research Planning

SUGGESTED READING

1. Four Cases (enclosed)
2. "Implications for Institutional Research of Studies on Student Characteristics"
   by Paul C. Heist (enclosed)

A NOTE ON CASE STUDIES

Four institutions are described in the cases to be used at the Institute. They are:

(1) Rocky Mount University, a public university

(2) South Coast Junior College, a public 2-year college

(3) Kingston College, a private liberal arts college

(4) Baker College, a public 4-year college

These are imaginary institutions. Naturally, they resemble some actual colleges more than they do others, but that is unavoidable.

Each case contains four types of information:

(1) general data about the college; management, financing, location, programs, etc.

(2) more detailed data about students; enrollment, ability, attitudes, etc.

(3) some special institutional problems regarding students, which can be partially alleviated through research and data collection.

(4) questions regarding how research efforts at the colleges should proceed.

Each of four discussion groups will discuss one of the four institutions. Each group will be expected to consider itself responsible for determining what type of institutional research on students should be carried out at the college it is discussing.

-CASE STUDY-

ROCKY MOUNT UNIVERSITY

Public University

-CASE STUDY-

ROCKY MOUNT UNIVERSITY
Public University

Rocky Mount University is the largest of six public institutions of higher education in its state, and the second largest institution of higher learning in the Rocky Mountain region. It is located in a small town about 40 miles south of an urban center. Its relations with the local community are cordial. The community for many years has depended on the university for its commercial survival but is becoming more independent as various other types of service agencies are attracted there.

The university is controlled by a Board of Trustees, six men appointed by the governor for terms of six years. The university is financed through tuition and fees (25 per cent), state appropriations (70 per cent), and miscellaneous sources (5 per cent). The state in which it is located has a low tax base, since it contains large portions of government-owned land and has attracted relatively little industry.

Since the university opened its doors to 28 students in the year 1881, it has experienced a steady, and sometimes spectacular, growth. Until the great influx of World War II veterans, beginning in 1946, the rate of growth was fairly constant, whereas the period of 1946-50 was an unnatural one, occasioned by heavy veteran enrollments, reaching a peak in 1948 and falling off sharply thereafter. Following a three-year leveling period, an unexpected and sharp increase in enrollments began in the autumn of 1954 and has continued unabated to the present.

Enrollments at Rocky Mount University since 1920 are as follows:

1920 - 2,000
1940 - 2,800
1946 - 6,500
1948 - 7,800
1950 - 7,200
1952 - 6,700
1954 - 7,400
1956 - 8,900
1958 - 9,500
1960 - 10,000

In the academic year 1959-60 its several colleges and schools conferred 1,800 degrees in 45 fields of knowledge. Total university personnel number approximately 2,500, including the equivalent of more than 520 full time faculty members. Education and general expenses for the year 1959-60 exceeded $9,000,000.

Non-Resident Student Enrollment.

A special characteristic of Rocky Mount University, not common among state-supported institutions, is the high proportion of non-resident students in its student body. The fact that 37 per cent of presently enrolled students are from outside the home state, representing all 48 states and a number of foreign countries, gives a cosmopolitan flavor to the institutional environment. The administration considers this desirable from an educational viewpoint, feeling that it gives an added stature to the university; it also presents a challenge to the faculty and the administrative officers to take full educational advantage of this condition. Since many more applications for admissions will be received in the future than are approved, and considering that the university has no particular obligation to accept these students, the flow can be controlled and channeled to foster a balanced growth and development of the university. Non-resident tuition and fees are currently at a relatively low point, $350 per year, and have been going up about 5 per cent each year.

For reasons unknown to the administration, heavily disproportionate groups of students apply to the university from the urban centers of Chicago and San Francisco. Part of the reason for this is thought to be the influence of heavy enrollments of war-time students from these areas, and the influence of these persons on new students. Of the resident students, approximately 50 per cent are from the state's largest urban center 40 miles to the north. Students from Stoneham, the community in which the university is located, account for an additional 15 per cent of the residents.

The total student body is made up of approximately 30 per cent women and 70 per cent men. About 20 per cent of the students are married. Enrollment in the university's graduate programs has increased during the past five years, and at present makes up 15 per cent of the total. It is expected that, barring certain administrative decisions, the enrollment in the graduate programs will increase by about 150 per cent during the next decade. Heaviest enrollment is in the College of Arts and Sciences. The Schools of Engineering, Business, and Education account for the next heaviest enrollments.

The university has little need for a recruitment procedure. However, through attractive brochures and announcements, it indirectly seeks to advertise the natural advantages of its location and programs. A sizeable admissions office handles the large number of admission requests from out of the state, and keeps regular tallies of the number of requests from various states, the proportions of students enrolled from the home state compared to non-residents, etc. The admissions office has been requiring applicants to take College Board tests for the last three years. These have not been used as a basis for selection of students, but will provide the university with data which they may seek to use at a later time. Up to the last five years, the university accepted high school graduates in the upper 50 per cent of their class from out of state. In the last two years they have selected about 75 per cent of the total applying group, on the basis of high school grades, class standing, and letters of recommendation.

Admissions in the future will be partly guided by the number of home state students applying for admission; the Board of Trustees of the university is studying the question of continuing the policy that graduates of the state's high schools will be accepted to Rocky Mount University on the basis of graduation alone. Therefore, as this group increases, the Board has suggested that the university control its total growth by selecting from the out-of-state students that number which, in addition to the home state students applying, will make for a total enrollment which they desire. The admissions office, therefore, is studying the several possible techniques it can use to select the most desirable out-of-state students.

Informal Student Activities.

Fraternities and sororities at Rocky Mount University represent the major focus for organized student activities. Membership in student government and leadership in almost all student affairs is dominated by members of Greek organizations. Popular extra-curricular activities are skiing, participation at university meets and games, weekending in the urban center to the north, picnicing in the nearby mountains, and drinking and dancing at bars and dance halls. Activities on the campus which involve the largest numbers of students are mainly "spectator" events: student government elections, student talent reviews, a foreign film series, a regular series of lecturers on campus, appearances of musicians, and three separate "weeks" devoted, respectively, to American Politics, Religion in Today's World, and International Relations.

Drop-outs, student image, etc.

The university suffers a rather heavy drop-out of students after the sophomore year. It is thought that this may be due to a drop-out of non-resident women who seek only a two year "finishing school" education, and possibly also to the withdrawal of some resident students accepted on the basis of high school graduation, who cannot meet the academic requirements of the university. Transfers from other institutions at the junior year make up for about one-third of the total number of students dropping out after two years at the university. The transfers are primarily non-resident students, thought to be from locations similar, in general, to those from which the drop-out students came.

There is a general acceptance among the College of Arts and Science faculty that non-resident students see the university as a "country club," and attend it largely because of its nearness to other pursuits which they seek, almost all of which are extracurricular. The administration conducted interviews with a sample of students about four years ago, seeking to find out their interpretations of the university's special qualities; the "country club" attitude was only partly substantiated. Several other factors, including academic, vocational, and circumstantial, seemed to be playing a part in the students' choice in this institution. It is not known how many students dropping out transfer to other institutions or cease their education entirely. In general, the resident students show an aptitude level about 10 per cent lower than students entering Rocky Mount University from other states. Further, the number of home state students who are of exceptional ability is considerably smaller than that group from out of state. It is thought by the administrative officials that many high quality in-state students attend Eastern institutions of higher prestige.

Problems.

1. Rocky Mount University has sought rather large increases in funds from the state during each recent bi-ennium. It has based its requests largely in terms of (1) increased costs of maintaining its level of operation; (2) the gradual increase in graduate programs (inherently a more expensive endeavor); (3) increases being given to other state institutions; and (4) enrollment projections.

Among other things, the appropriations committee of the state legislature has noted (a) the high proportion of non-resident students enrolled at the university; (b) the net loss to the state of the difference between out-of-state tuition and costs of educating a student; (c) the rather serious drop-out at the end of the sophomore year; (d) the rather limited criteria of selection used in securing out-of-state students. The committee has asked the university to make its case for having the large out-of-state enrollment, and has asked that the university present alternative selection systems, based on research into the predictive value of various criteria of selection.

President Garland turned this problem over to Vice President Stainton. "Veep" has appointed a committee and charged them with investigating these matters:

(1) the arguments for and against having a "cosmopolitan" student body; a definition of when a student body becomes "cosmopolitan" in terms of the number of non-resident students

(2) the probable reasons for withdrawal of students at the end of the sophomore year

(3) the relation of these two factors to the university's selection system, and what changes might seem necessary in the future.

2. While the dean of men's office has not been plagued with extravagant student misbehavior during the years, neither have they felt particularly satisfied with the extracurricular activities which dominate the students' unscheduled life. Attendance at university functions of artistic, intellectual, or academic value tends to be low, while sports events, and university "fun" events receive a great deal of attention.

A faculty committee on student activities has suggested that students' use of leisure time reflects the essentially non- or even anti-intellectual attitude which dominates the campus. They have recommended that the student personnel office conduct an opinion study to determine students' attitudes and values about learning and the use of leisure time.

The committee was spurred on in its discussions by an article appearing recently in New Nation magazine in which an Amherst dean rated the country's colleges. Rocky Mount was placed in Category C-2, "undistinguished program with mediocre student body."

The committee, led by Psychology Professor Blunt, asked that the survey seek answers to these questions:

(1) What special characteristics, intellectual and other, do students attribute to Rocky Mount?

(2) What is their evaluation of Rocky Mount 5 years after leaving?

(3) What intellectual activities have the greatest impact during 4 years at Rocky Mount?

(4) What intellectual pursuits do students feel could comfortably be built into their leisure time?

(The dean of students has expressed his attitude that students entering the university in the last five years have shown a surprising increase in intellectual interest. He has suggested that the students merely are opposed to organized intellectual activities, and that "they learn as much over their beers as they do in classes.")

3. The Board of Trustees, at its last meeting, issued a resolution to President Garland expressing deep regret at the recent adverse publicity given the university in the press of the state's biggest urban center. The publicity referred to described the university as "a virtual country club, which attracts beatniks, play boys, bohemians, and rich kids, and then, over four years confirms their image of the university as a party school, where the gentleman's "C" can be achieved with one night's study per week." President Garland, responding to the resolution, told them that the bad publicity in the press came from an editorial staff biased in favor of the state's land grant college. However, he added that "we ought to get to know more about what our students think of the university and why they come here." The Board of Trustees concurred in that opinion.

On his way home from the Board meeting, President Garland wearily opened his portable transcriber and dictated a memo to Dean (of students) Ash:

Jim:

We need information on (1) the students' view of Rocky Mount and their reasons for attending here; (2) the kind of students we attract, personality-wise; (3) the study habits of students as related to their accomplishments. These are tough things to get at. Would you and Fred Ratner in the Research Bureau talk this over in terms of a study proposal? Clear your calendar for 10:00 a.m. Monday to review the proposal with me.

(signed) Harlan

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QUESTIONS

1. What data should be regularly collected at Rocky Mount University? Each month, year, 5 years, etc.

   ...on enrollment?

   ...on drop-out?

   ...on student attitudes?

   ...on student abilities?

   ...on informal student life?

   ...on non-resident enrollment?

   ...on selection criteria?

2. What special studies are called for by the immediate problems described above?

3. What administrative officers would probably be in the best position to do each type of research?

4. What special studies should be done in anticipation of Rocky Mount's growth?

-CASE STUDY-

SOUTH COAST JUNIOR COLLEGE

Public 2-Year College

-CASE STUDY-

SOUTH COAST JUNIOR COLLEGE
Public 2-Year College

South Coast Junior College recently received its report of the survey team representing the commission for Accrediting Junior Colleges of the Western College Association. Careful reading of the report would lead one to suspect that all was not well on this beautiful campus. The report released five years earlier sounded so very different than the one drafted by the present survey team. In 1955 the college received a maximum accreditation of five years; the current accreditation has been granted for a period of three years.

A complete review of the accrediting report reveals a number of problems and results in a variety of questions. What has happened in this ideal setting in the Palo Verde Hills to cause an apparently well-administered public junior college to become the center of contention and strife? Why is it not growing? Why is there uncertainty regarding its future, with extensive suburban development mushrooming around it, with a new north-south freeway to San Diego not too far away to pour students into its classrooms? Why is this institution and setting not attracting students as once anticipated?

The institution should be looked at more specifically--its organization, financing, campus, faculty, program, public relations, activities, and general current status,--to see what its problems are. South Coast Junior College is one of California's total of 63 public junior colleges. It is one of 32 which are administered by a five-man (four men and a woman in this case) board of trustees representing an independent junior college district. The district includes two high school districts: Dos Palos Hills and South Sequoia Heights. The district has an assessed valuation of $235,050,000 and had an average daily attendance of 846 in 1958-59 ($277,836 of assessed valuation per unit of average daily attendance). It is, of course, a basic aid district.

While growth in the area is essentially residential and businesses in the community are almost entirely of a commercial service type, the increase in assessed valuation will be steady for several years; at the same time the average daily attendance for the college should steadily increase from 1962 on as the war babies reach the 13th grade and swell its enrollment.

The college is one of the older junior colleges, having been in operation for about 27 years. During much of this time it has had an excellent reputation for a strong lower division program. For many years the grade point differential of its graduates who transferred to the University of California, Los Angeles, has remained approximately at a negative 0.25, which is below the differential for all other junior colleges in the area and well below the state average of -.56.

The South Coast Junior College campus of 55 acres is beautifully landscaped; its buildings which are of Spanish mission style architecture, are well maintained but not modern in functional application or utilization. President Santer of the college has never found it was necessary to hire a business manager; instead he employs a highly competent accountant-clerk to manage the business functions. He personally supervises the maintenance and custodial services through a head custodian and a staff consisting of a carpenter-general mechanic, a painter, three gardeners, and five custodians. As specialized plumbing and electrical services were needed, they were secured from local agencies. Community citizens have always expressed praise for the appearance of the college.

The faculty of the college has been carefully chosen, and the accrediting team judges them well qualified to do the job assigned. There is a faculty-student ratio of one teacher to 19.5 students, which is considered quite adequate. Fifteen per cent of the teachers have Ph.D. degrees and all other teachers have at least the M.A. degree or its equivalent. The turnover in the faculty is very low; new teachers have been employed largely to replace teachers who have been retired at the mandatory age of 65. In spite of the high quality and permanence of the staff, there has been increasing tension between faculty on the one hand and administration and the governing board on the other. Primary cause of the tension has been the faculty's demand for a "five-year plan" which would define the hope of college which South Coast can expect to become.

The program of the college has been generally static with emphasis on transfer training. Probably mathematics, science, and engineering have received greatest emphasis in the offerings of the college, perhaps a function of the personal interest of President Santer, who is himself a graduate engineer. A well-diversified program in the other academic disciplines is available. Graduates, in addition to transferring to U.C.L.A., also go to Long Beach State College, Los Angeles State College, University of Southern California, California Institute of Technology, the Claremont Colleges, and the University of California, Santa Barbara.

It is generally conceded that graduates of the two local high schools rank institutions for their own collegiate institutional experience in the following order: an Ivy League college, then University of California, Los Angeles or Santa Barbara, then University of Southern California, then a state college, and finally South Coast Junior College. The good reputation of the junior college, however, and the success of its graduates are indicative of a rather excellent student body; many capable students enroll here even though other institutions might be preferred.

Only limited attention has been given to a program of terminal-technical-vocational curriculums. No survey of community needs for technically trained young people has been made, nor has any survey been made of the interests of high school graduates in vocational training. Little or no effort has been made to follow up on students who leave the college either before or after graduation. Causes of drop-out are not solicited.

Courses of a terminal nature now include training in such business courses as typing, secretarial training, bookkeeping, and business machines. Two-year technical programs both in surveying and drafting and for engineering aides are offered. The Engineering Council for Professional Development has accredited these as well as the two-year pre-engineering transfer program. No work is offered in trade and industrial training in either day or evening classes except boat building. The adult education program is limited to fine arts and crafts. No graded courses are offered at night.

No effort has been made by the college to carry on any extensive recruitment program for students from the two local high schools. Neither has any use been made of early testing and guidance for prospective entrants. As yet no advantage has been taken of Education Code provisions which permit the enrollment of superior high school seniors for part-time college loads.

There are three adjacent high schools located in non-junior college territory from which many junior college students could be enrolled with resultant increases in operating and capital income. Little has been done to promote a public relations program to encourage this, nor to assist in developing strong local community support. No citizens advisory committees have ever been used. Most of the immediate community view the college, etc.

While a limited program of student activities has been fostered by the college through the service of the Dean of Men and the Dean of Women and the Associated Student Body, little cooperation is given by the faculty in sponsoring student activities and in chaperoning social affairs.

Problems

(1) The latest Western College Association accreditation team criticized the institution for the lack of an adequate campus center and adequate food services. It was recommended that: "Immediate attention should be given to the development of a suitable campus center which would include a coffee shop or snack bar, a cafeteria and dining room, lounge facilities for students and faculty, a book store, a health center, and the headquarters of the Associated Students which would include a meeting room, bookkeeper and cashier's office, and necessary storage area for student body supplies."

(2) Guidance services for the college students are practically limited to the academic and scheduling advice given by the faculty "advisors" at the time of registration on the day immediately preceding the opening of classes in the fall and spring. Guidance, as well as academic supervision, is the responsibility of Vice President Gillespie. A Dean of Men and a Dean of Women assist in counseling activities, but personal counseling is limited. There is no formal orientation program or class for new students. Vice President Gillespie is also responsible for the preparation of the class schedule and for the assignment of teachers.

No formal placement services are provided by the college, a definite lack which was also pointed out by the accreditation team.

(3) Because President Santer will retire within two months and a new superintendent-president is to take over in the fall of 1960, it is important that the faculty, the administrative staff, and the board consider the kinds of data which will be needed to assist in making decisions for policy development and long-term fiscal and program planning. Improvement in internal communications and organization must come about also. Long-term planning for site development must be done in terms of projected enrollment, anticipated curricular offerings, financial ability, and possible changes in district boundaries.

Special consideration must be given to data on students which the college needs. For example, these are some questions which President Santer outlined recently in a memorandum to his successor:

(a) From what sources can South Coast expect to recruit students in the next ten years? What effect will the new state college and new university campus have on recruitment problems?

(b) What portion of potential students would seek a terminal-technical-occupational curriculum if such were expanded? What portion of students attending the three nearby high schools could be recruited to South Coast? What type of curricula would they prefer? What are the district's needs for specialists who could be trained in two-year terminal programs?

(c) What effect would higher tuition, an expanded program in transfer courses, and enrichment have on enrollment? What physical facilities used for students should have highest priority? What extent of guidance and counseling services should be added to the college?

(d) What becomes of South Coast graduates? How does their education fit them for what they do upon leaving? What aspects of the curriculum, the "college life," and the physical plant would they have preferred to be different? Who drops out? Why?

(e) Why do students choose South Coast? What "character" does the college have in the eyes of entering students and their parents? Is this confirmed after two years?

(f) How could the informal life of the college be made more conducive to quality education?

(4) An "irate group of citizens" (Dos Palos Sentinel) visited the office of President Santer last week. They were irate about "their joint belief that the junior college was coddling students who had no right in college classes." President Santer explained calmly the orientation of South Coast to accept all students who, it was felt, could

benefit from the time spent there and that the "rights" of these students were as valid as those for any other group.

The citizens, led by Alfred Bunt, Dos Palos businessman, demanded that President Santer describe in a public forum the steps that South Coast should take to ensure that good students are kept "flowing into the doors of our alma mater in a constant stream, while opportunity is also held out to those of whom only a small portion may graduate." President Santer agreed to do this.

He feels his remarks should be bolstered by references to research and data collection efforts at the college that could make such a plan most fruitful.

(5) The South Coast faculty, through a committee appointed last year, has recommended that an Honors Program be instituted for students who: (a) are in the upper 1/5 of their class of College Board tests (which they recommend be required of each entering student); (b) are declared transfer students; (c) can spend two two-hour evening sessions per week in Honors Classes.

The faculty feels the Honors Program would be beneficial to them as well as the students, as indicated in the remark of Dr. Bill Shaker, Associate Professor of English, that he "makes only occasional and passing reference to some of the best writing in English literature because we just don't have enough students to fill up a section on, say, Milton or Shakespeare."

President Santer talked with the faculty committee about the Honors Program. He expressed the view that not enough was known about the motivation and interests of South Coast students to justify initiation of an Honors Program at this time. The committee asked that President Santer outline just what data must be known before a decision could be made. The President turned the problem over to Vice President Gillespie.

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QUESTIONS

1. What data should be regularly collected at South Coast Junior College? (Each month, year, 5 years, etc.)

   ...on student drop-out?

   ...on geographical source of students?

   ...on student academic abilities?

...on student attitudes about curriculum?

...on SCJC graduates?

2. What special studies are called for by the immediate problems described above?

3. What administration officers would probably be in the best position to help President Santer or the vice president do this research?

4. What special research projects should be started in anticipation of SCJC's expected growth?

-CASE STUDY-

KINGSTON COLLEGE

Private 4-Year College

-CASE STUDY-

KINGSTON COLLEGE

Private 4-Year College

Kingston College, founded shortly before the Civil War, is located in the city of Two Rivers, Illinois. Two Rivers, with a population of approximately 75,000, has grown from a background of agricultural and industrial activities. It is the largest city within a radius of 50 miles and continues to serve as the major marketing center for most of the rural inhabitants. The industries found here are of many types, small and large; the growth of new industries has abated in recent years. In the surrounding territory, Two Rivers is noted for its parks and playgrounds, for pleasant residential areas and numerous large homes and estates. Cultural activities, music, art and drama, are scheduled throughout each year and generally judged to be above average in quality. Quite a number of these events are held on the Kingston campus. The campus is surrounded by a residential section of middle class homes; some of these have been serving as rooming houses and student residences in the past two decades.

Town and gown relationships have been generally excellent over the years. In the fall of 1956 there was one incident which attracted some attention. Following a homecoming victory, a large body of students demonstrated through the major business district and then "crashed" one of the large theaters with the idea of getting a "show on the house" for the entire group. In gaining entrance to the theater there was some minor distruction of property. Two or three police officials became involved and one of the police was roughed up in the process. A protest to the college administration came from the theater management, a group of businessmen, and a number of irate citizens. An ensuing meeting between Chamber of Commerce representatives and some college officials resulted in an agreement regarding the prevention and the handling of future student demonstrations. Except for an occasional minor display of student enthusiasm, none of which has lead to any serious difficulties, relationships between the community and the college have been at the level of peaceful coexistence. In actuality, there is a lack of any real communication between most of the Two Rivers citizenry and the majority of the college staff.

Most of the Kingston campus is located within six city blocks. The men's and women's athletic fields are removed several blocks from the campus proper. Twelve buildings, varying considerably in size and architecture, are to be found within the six block area. The oldest buidling on the campus accomodates both administrative offices and classrooms. The library, built in the late 1920's, contains about the average supply of books for an institution of this size. There is one large men's residence hall and one large and one small women's residence. Among the newest buildings on the campus are a chapel-auditorium and a separate music building. Some of the buildings appear rather old and weather-beaten. The college is not known for the beauty of its campus.

The college, in essence a liberal arts institution for the past 75 years, is affiliated with the Presbyterian Church. The relationship with the church has changed over the years and has been tenuous in the past two decades. However, several people on the board are members of the clergy in the Presbyterian Church, a number of other prominent members are active in the church as laymen, and some are recognized leaders in midwestern industries. Dr. Angus Shulman, president of the college, is 49 years of age and came to Kingston four years ago after a successful career as minister of a large metropolitan church.

The college is one of eight institutions in the Tri-State Conference, a relationship initiated in the 1920's largely for athletic purposes. Since then the college administrations have found other grounds for perpetuating and intensifying the work of the conference. All schools are accredited by the North Central Association and generally recognized as some of the better liberal arts colleges in the Mississippi Valley and in the Midwest. Within a 75-mile radius of the college there are a number of other institutions of higher education, including one large state public institution and four other private liberal arts colleges, one of which is also in the same conference. Two years ago, a consultant working on a project in higher education in the state made this comment: "All colleges in this conference appear to be very much alike to even the sophisticated public. A close look, however, at the various schools suggests this is not the case."

The faculty, composed of 80 some members, is rather heterogeneous in training and background characteristics: a majority obtained their graduate degrees in midwestern universities; approximately a third have their doctorate degrees; 60 per cent have received their appointments since 1955; thirty per cent of the instructional staff have joined the faculty in the past two years; less than 20 per cent took their undergraduate degree at Kingston; and no more than 40 per cent are members of the Presbyterian Church.

The total enrollment at Kingston in recent years has varied between 750 and 850. The student body, with relatively few exceptions, is from the immediate Midwest. A little over 65 per cent of the entering student group comes from the state of Illinois, with 25 per cent (commuters) coming from the community of Two Rivers and another 20 per cent coming from a radius of 50 miles. About 20 per cent live in Chicago or nearby suburbs. The great majority of other students have their homes in the states of Wisconsin, Minnesota, Iowa and Indiana. A small number have their origin in the Northeast (5 per cent) and even fewer in the Far West (.5 per cent).

There is considerable variation in the religious background of the students with the largest numbers listing the Presbyterian, Congregational and Methodist denominations. The next largest proportions come from Episcopal, Lutheran, Catholic, and Baptist backgrounds, in that order. A few students each year list the Christian Science, the Jewish, or the Unitarian faiths, and never more than three or four give any other single religious origin. Less than five per cent on this campus list no religious affiliation. Required chapel was dispensed with early in the 1950's but all students need credit in two courses in the area of religion to meet graduation requirements.

The proportions of men and women in recent years have been approximately 55 and 45 per cent respectively, with a greater number of men represented in the commuters from the local community. Never more than 1 to 2 per cent enroll from an independent or private school background. The distribution of entrants by standing in their high school classes in recent years is about as follows:

First quarter	45 per cent
Second quarter	28 per cent
Third quarter	20 per cent
Fourth quarter	7 per cent

College Board Scholastic Aptitude Test (SAT) scores are required of all entering students. The mean scores are 490 for the Verbal test and 515 for Mathematical. Presently five out of every six applicants are accepted for admission and three out of four actually enroll. Major considerations for admission include 15 units of high school work, only 4½ of which are restricted to English and social science. There are no definite prescriptions for natural science, mathematics or foreign language. Recommendations and SAT scores are other considerations.

The number of applicants and the size of enrollment has increased gradually though only minimally in the past eight years, but the mean aptitude score has remained relatively stable. The source of students and the general type (background, interests, aspirations) has not changed noticeably in several decades, except for one thing. At one time, athletics were emphasized much more at Kingston, and the football and basketball teams were rated among the best in the state. The college had a well-known recruitment program for athletes from much of the Midwest. At that time Kingston competed with a number of larger schools outside of the conference. A broad but somewhat de-emphasized intercollegiate athletic program exists at the present time.

Differences among the entering student populations is one way in which the eight colleges in the Tri-State Conference vary. The type and size of communities in which they are located represent another obvious difference, while they appear to be rather similar in such things as the scope and emphasis of curricula and student-faculty ratio. The Kingston students would rank with the lower group of colleges in the conference from the standpoint of ability; the entering students in two colleges at the top of the eight have mean aptitude scores more than one half standard deviation higher on both the Verbal and Mathematical tests. In these two colleges with the higher ability students, approximately 70 per cent come from the bottom two quarters. These same colleges are also somewhat more productive of graduates who later obtain their doctorate degree than is the case with Kingston graduates. The number from the latter institution, however, who go on to receive their Ph.D. degrees is a little above the national average for four-year liberal arts colleges.

There are a small number of fraternities and sororities on campus, all of which are chapters of national organizations. (These organizations exist essentially for social reasons, with the students in only one fraternity exhibiting an above average interest in academic achievement. The Personnel Office staff report an increase in discipline problems in recent years. Drinking has been labeled as a real problem of late, also. Most of the discipline problems and a good deal of the drinking seem to be concentrated in four of the fraternities.) A fairly large number of independent men and women are active in the Independent Students Association, also a national organization. Beyond this, there are the usual societies and clubs found on most campuses organized around common interests of the participating individuals. The extracurricular program in music, art, drama, and publications appears to be rather extensive with the majority of students participating in one or more of the activities.

The stated purposes of this institution have remained much the same over the years. Though "dedicated to the proposition that its purpose may best be achieved through the devotion to the liberal arts and sciences," the school also has a vocational orientation which is euphemistically expressed as preparation of young people to "cope intelligently, effectively and responsibly with the complex and changing conditions of life in modern society." A report in former years by an accreditating agency pointed out that this college seemed to stress specialized knowledge for vocational achievement. Some of the faculty continue to be disturbed by the age-old controversy of general education versus vocationalism, arguing against an over-emphasis on the latter in committees and faculty meetings. Apparently, administrators and leaders in this institution have been struggling with the problem, never having arrived at a clear-cut decision, whether their school should be basically a liberal arts college or an urban institution serving the general needs of the community.

The curriculum at Kingston gives emphasis to the liberal arts and the sciences. The course work available is somewhat greater in scope than other colleges with a similar program. Music is an area of particular strength, and as in a number of colleges of this type a separate degree is granted in this one area. Students are encouraged to combine some courses in music with other work in the liberal arts. The language department has also gained a reputation in the state. The educational program provides for advanced placement for freshmen with exceptional ability, for independent study for juniors and seniors who have received honors recognition and for special combinations fo work with professional schools in law, medicine, enginnering and nursing. Two adjuncts to the regular educational program are the Evening College and the Summer Session. Though credits may be transferred to apply toward graduation, the two programs are separately administered.

Kingston also differs from most other institutions in the Tri-State Conference in the amount required for tuition and board and room fees; only one other of the eight colleges has current costs listed at the same relatively low level. The six other colleges have tuition rates which vary from $100 to $300 higher than the Kingston tuition. A variety of financial aids are available to the students through scholarships and grants-in-aid. Capable, needy students have no difficulty obtaining financial help, and special loan arrangements can be made for those not qualifying for scholarships and grants. Quite a large group of students also seek and find employment in the community besides those regularly employed on the campus.

From the standpoint of the educational program the major officers in the college are the President, the Dean of the College, the Registrar, the Dean of Students, and the Deans of Men and Women. Student advisement, especially from an academic standpoint, is a well-planned phase of the total program. An advisor is assigned to each student early in his freshman year and he serves as the student's principal counselor for two years. All course work is planned with the assistance of this staff member.

The work of the advisors is supplemented by the Student Personnel Office staff. This group, responsible for supervision of student life and resident housing activities, also serves as a personal counseling staff. Their work is assisted by dormitory residents and upper-classmen, selected and trained, who serve as residence counselors. The personnel program is an active and functional one, seemingly more involved in student life and activity than is the case on many another campus.

Current situation

During the 1959-1960 school year President Shulman appointed an Evaluation Committee of local administrators and faculty, asking them to spend the ensuing summer and school year in preparing a report for the faculty and the board. In brief, the committee has been asked to review the present status and recent "accomplishments" of the college and to consider the future of Kingston and the education of students at the college in the light of the expected conditions of the next decade. The President, together with the Education Policy Committee, was brought to this decision partly as a result of the publicly expressed concern about higher education's role in a rapidly changing world. He has also become increasingly aware of the growing concern in the minds of faculty about Kingston's rank on criteria of quality, especially as they compare their college to other colleges in the Tri-State Conference. Some other midwestern colleges have been seen as changing more rapidly and as surpassing Kingston in the last decade in the number and presumed quality of the students drawn. President Shulman has more recently been provoked by the expressed attitudes and sentiments of a small number of the younger, newer members of the teaching staff regarding inadequacies both of the local program and of the students who attend. Two of the humanities faculty have been very vocal in stating that the college admits students who should not be in college, arguing that many have poor preparation in math and English and should be screened out. The latter development has created some minor difficulties in relations, both among individuals and departments and has not helped with staff morale in the past two years. The culmination of all this is the temporary committee which is being asked to "diagnose" the school in current and recent historical context and to bring forth recommendations which might be basic to new policy and plans for the future. Members of the faculty (9 months appointment) are receiving six weeks summer salary in compensation for their efforts, and have been asked to refrain from any other commitments for at least those six weeks.

The memorandum from the President to the committee chairman and members listed both areas of concern and problems for the group's "diligent and concentrated consideration." The following are a few excerpts from the memorandum.

"1. Kingston College, undoubtedly not unlike many others, has been described as a static institution in a changing world situation. We have been accused of not preparing to move with the times. More specifically, some of our own colleagues are apprehensive about our readiness to select from the much larger number of students who will be applying in the years to come and also about an increasing number that can optionally be accommodated with the present limited plans and budget for increased facilities. It is likely that in a very few years we will have ten applicants for every vacancy. Is growth in numbers a valid or any criteria of progress? Should we expand? Should we gear our college program to a doubled enrollment? What type of students would we get under such a circumstance?

"2. In the light of a "new world" and the new and increasing demands upon the citizens living in it, and in light of what we as academicians expect from the graduates of our college, I ask you to give your most serious attention to a) the content of our curriculum with the possibility that it may need restructuring and require different emphases from the one to which we are accustomed, in order to prepare students for life and problems that cannot be fully assessed in the present, and b) to educational procedures, to the conditions of effective teaching, to the creative use of "free" time, and to investigating what factors make for more effective communities of learning.

"3. In my few years with the institution, I have become somewhat concerned about our educational accomplishments and our services to the general community in the light of Kingston's objectives and the major purposes of our program. We have been informed of the inability of this college to define its role. I will increase the assignments of this committee unduly by asking you to consider once again the question: "what kind of college should we be?" However, I doubt that you can deal with any of the other issues I have raised without very serious attention to functional objectives. Can we continue to serve, directly or indirectly, Two Rivers and the surrounding community, attempting to meet the needs of its citizens as an urban institution, and still do justice to the development and education of the young people who represent our major student body? Can we successfully fulfill the two roles? Should we seek to provide more of the cultural leadership and intellectual atmosphere, which go hand in hand with the true liberal arts college, and forego some of the aspects of our program which some of the faculty have referred to as "service enterprises"?

"4. Again judging by comments from some on the staff and taking a cue from some writings on students and their attitudes in recent years, it seems that we have not fully considered the person to be educated. Some of the staff have commented about the limitations of our own student clientele, suggesting that those who enroll here are not of the caliber, in various senses, of those in many another liberal arts college. A few have suggested that we establish an image of the "ideal" student for a program such as ours and recruit only such students. Certainly we are already restrictive in our admissions policy. To what extent should we become more so? On what basis should we decide to do so? How does a changed policy of recruitment and selection fit with the objectives of the college? This seems to me to be an area of confusion and limited knowledge. I ask you to also give time to the Kingston student: who is he and who should he be? Please help clarify the picture for all of us regarding such major considerations.

"All of these problems concern the students at Kingston, and it is with them that we should be most concerned. They are the raw material of our labors and, someday, will be the finished product for which we will be partially responsible.

"The problems I have outlined above cannot be solved by conjecture. We need facts, data, information. Nor will these alone settle the issues before us. But they will give us a sound foundation from which to start. Therefore, I would request that you attempt to define, among other things, a program of self-study research on students and matters bearing on their welfare and education which Kingston might follow in the coming years.

* *

QUESTIONS

1. What data should be regularly collected at Kingston? Each month, year, 5 years, etc.

   ...on enrollment?

   ...on drop-out?

   ...on student attitudes?

...on student abilities?

...on informal student life?

...on selection criteria?

2. What special studies are called for by the immediate problems described above?

3. What administrative officers would probably be in the best position to do each type of research?

4. What special studies should be done in anticipation of possible growth at Kingston?

-CASE STUDY-

BAKER COLLEGE

Public 4-Year College

-CASE STUDY-

BAKER COLLEGE
Public 4-Year College

Baker College is a public four-year college located in an industrial city of 125,000 people. Surrounding Baker City is a rural farming area with many small (1,000-2,000 population) towns which depends heavily upon dairy and truck garden products.

Baker College was founded in 1926 when the city school board agreed to assume management of a church-related college which was about to close, due to financial difficulty. The aim at the time of the merger was to retain the liberal arts program of the church-affiliated school and to promote a more "applied curriculum for the city's student and adult population." Passing years found the city school system assuming more and more of the financial burden of the college.

The applied curriculum envisioned by the founding board was primarily a professional business curriculum, teaching and education, technician and technology courses, and the general education curriculum of liberal arts.

During the first twenty years of its existence, Baker College was under the control of the superintendent of schools of Baker City and administered by an assistant. The college policy, formulated by the elected school board, often changed at election time or with a change of superintendents. The faculty was made up primarily of high school teachers working extra hours and other teachers remaining from the church-related school. Cooperation between the two groups was limited.

After World War II three significant factors contributed to the establishment of Baker College as a college in its own right: (1) the increased use of the facilities of the college by the community and the veterans, followed by the upsurge in enrollment; (2) a private endowment fund given to the college which specified that periodic grants would be used for physical facilities while a continuing yearly amount be used equally for operations and facilities; (3) the establishment of the office of college president, responsible only to a board selected by the city school board, and the endowment commission. (This board is designated as the Board of Trustees and is composed of seven members of varying times of office. The city school board selects three members.)

These changes occurred in the 1949-1950 school year, and Baker College was moved to its present site on the outskirts of Baker City. The campus is composed of 220 acres with buildings, all new since 1950, and facilities designed to handle 2,500 students. There are additional facilities to handle evening and adult education classes.

The new president, Dr. Leonard Brighton, was given authority to modify and increase the curriculum offerings for both adult education and terminal 2-year programs, and a strong four-year college curriculum. The present administrative policy is toward fulfillment of both responsibilities in theory, but the building of a strong academic faculty is given strongest emphasis.

Salary and operating expenses are divided between the college's responsibility toward the adult and evening classes and the regular degree students. Generally, faculty salaries and operating expenses are equally divided between the two divisions, but a tendency exists to pay lower salaries to faculty who teach evening and adult classes.

President Brighton is in direct control of the college, serving under and reporting to the board of trustees. Directors and deans report directly to the president. There are the schools of Business, Technology, Education, Arts and Sciences, Adult and Continuing Education; President Brighton is assisted by a dean of students, registrar, and business manager. President Brighton likes the present organizational plan and feels the college is small enough to merit no intermediate offices.

The presence of a junior division of the state university in Baker City has caused growing concern recently. The initial establishment of the first two years of university work at Baker City was felt to be no threat since local students would have gone elsewhere anyway. Now that Baker College is striving to improve its academic status, its college administration and faculty feel the two year university draws off the best students from Baker City high schools. One means of dealing with this situation has been to accredit the first two years of Baker College at the different universities and professional schools in the state.

Baker College is growing with sufficient financial aid to plan for increased enrollments. Relations between the college and the city are very good. The new campus and buildings have permitted increased enrollment of full-time students and use of the college by the people of Baker City. The facilities are used throughout the day and evening; this high use of facilities gives Baker College a better return on its capital outlay.

The future plans for Baker College include an expansion of the present degree-granting schools. The president feels the college must grow in this area to attract faculty members of good quality. The college, while meeting the needs of the community in continuing education, must develop its academic potential for a good undergraduate education. There are no immediate plans for graduate work since the president feels the college must first strengthen the present offerings.

For adult and evening courses, admission is by payment of a small fee. Entrance to the two-year and four-year degree curricula is by high school diploma, and recommendation of high school principal; special testing is available for those not thus qualified but desiring admittance.

Many exceptions have been made, however, and the exceptions have almost been the rule. A standard practice within the state educational circles is referral of a student to Baker College if he cannot gain admission anywhere else.

Many of the faculty who teach in the regular academic four-year curriculum favor raising standards to compete with other colleges or the two year preparation established by the state university. They feel they must continue to enforce higher standards or be lost in a junior college status. A contrary viewpoint is expressed by those who teach in the technical courses or adult education courses. They want to give emphasis to service for the community.

The policy of the college remains to give higher education to all those with minimum qualifications who apply. One problem now is the admittance of those with high aspirations and low ability. The college is faced with admittance of several unemployed workers who want a better education for better employment. Should Baker College seek to rehabilitate these persons while striving to maintain the academic standards of other progressive colleges?

The registrar, Martyn Wotkyns, maintains all student files, grade cards and admission data. His position has been to get the job done and not wonder about past or future trends or summarized reports. Presently, his staff prepare statistical summaries of the student population at Baker College, but the reports generally are filed away and never used. Little has been done in determining trends in student population and criteria of evaluation of grades.

The office of the registrar does not determine admissions policy. A faculty committee of three members works with President Brighton on this. The registrar does not feel responsible, therefore, for much more than maintenance of student records. All applications for admissions and reinstatement are handled by the admissions committee.

There is some talk of placing a research person in the office of registrar and admissions director. President Brighton has been somewhat hesitant to do this, but the decision must be made soon. The present registrar feels he is not the person for the job and would like to relinquish his responsibility with all student records.

Students at Baker College include high school students taking advanced summer and evening courses, regular college students, and unemployed factory workers desiring to enter the technician curriculum.

The student population shows a rapid gain in the last ten years.

	Degree Students*	Non-Degree Students**
1930	400	740
1940	765	1280
1950	1200	2000
1953	1500	2600
1956	1800	2650
1959	2000	2900

*A student enrolled in a two-year or four-year school awarding a degree.

**A student attending a class or classes but who has not enrolled in a two-year or four-year school awarding a degree.

Presently anticipated expansion of the two-year and four-year degree courses will raise these figures as will the full accreditation at other universities of the first two years of college work at Baker College. Many of the faculty are urging a full liberal arts curriculum for professional school preparation at other graduate schools.

All personnel services are under the Dean of Students and include the counseling and testing center, placement center, health referral service, housing service, student government and organizations, and student loans and scholarships. The student cafeteria and snack bar are under the direction of the business manager.

Housing for most of Baker College students is at their own homes. There are a number of rooming houses across from campus which handle those students from out of town. Food services are limited to the cafeteria since, commuting students rely mainly on home meals.

Al Pope, the Dean of Students, does not plan on enlarging housing facilities at the present time but would like to provide some means of increasing the students' activity on the campus. He is quite eager to build Baker College into a residential college. He himself is asked to meet more civic responsibilities and functions with the adult and evening groups than with the "regular student group." The Dean wonders to himself whether his staff should obligate themselves to such a time-consuming responsibility.

Baker College has a definite interest in testing, counseling, and placement of its students and cooperates with city and state agencies. Every student who has enrolled at Baker College can take advantage of these services. The result has been a heavy yearly increase in service by the counseling and placement center. Both centers feel they are too busy to do many follow-up studies or to do any evaluation studies.

The counseling and testing center handles a large number of student cases each year with a fairly comprehensive gathering of data on each student. All of the students' grades and biographical data are included, as well as test and counseling data. These files are maintained for four or five years and then disposed of because of lack of space. The director of the counseling center has four staff members and a psychometrist working under him. All have very heavy case loads and at present spend little time doing active research. They feel they should do research, but the increasing service function fills their working day. The one continuing study they do maintain accurately is a measure of their increasing case load.

One study done several years ago compared the entering 1957 freshmen test scores with those of 1952 entering freshmen and found significant gains by the 1957 group. This study was widely advertized as showing the increasing academic caliber of students now entering Baker College. Two college ability tests were used for comparison purposes.

At the present time, one of the most pressing issues facing the counseling and placement centers is the number of unemployed workers released by Baker City industrial concerns. These workers are enrolling at Baker College in attempts to educate themselves in one of the technical courses. Many of the workers are on relief and lack the necessary scholastic skills to complete the curriculum. They still apply, producing large classes and a high drop-out rate. The matter is of growing concern to the administration, and certain steps are being taken to limit admissions to the technical courses.

The director of the placement center, George Roberts, has been told by personnel officers of certain local industries that Baker College is putting too much liberal arts into the two-year technical curriculum. The hiring industrial concerns want persons ready and trained to do the job. Several applicants have reported job application failures because they were not trained in the latest chemical technology techniques.

The area of student organizations and government has been a source of difficulty to those in Dean Pope's office who would like a stronger program. Many of the organizations and activities are oriented to civic events, and relatively few to college events. One of the most active organizations on campus is the drama and theatre group, organized specifically for civic presentations. The students of Baker College have been categorized as "apathetic" by some members of the faculty and administration because of their lack of activity on campus. However, the students feel too busy with studies, jobs, and commuting to return to the campus for evening activities. There is no resident captive audience, then, for providing student activities on a large scale basis, yet those students who do participate in certain activities are very dedicated to their work.

Within the last two years at Baker College some attempts have been made to assess the number of students who were dropped or withdrew from the college's degree program. The various schools within the college have done fragmentary studies of their own students in attempts to determine why students left Baker College; the most common explanation has been academic deficiency. The technology school has maintained contact with many of its graduated members in attempting to assess changes in employment practices.

Baker College faculty members are at present somewhat ambivalent about the transfer of students to other universities after two years of work at Baker College. They would like to build a strong four-year program rather than obligate themselves to a two-year and transfer program. Yet they realize many students could be induced to spend two years at Baker College if they could then transfer to university work elsewhere. Therefore, one solution, they feel, may be to emphasize the transfer program now with the hope of building a strong four-year program in the next few years.

The transfer program has been in operation for three years and thus far about 75 students have transferred to universities. The Arts and Science school has interviewed some of the transfer students but only on a "chance meeting" basis.

Several of Baker College's graduates have made significant names for themselves and are used frequently to credit the college name. One man, Benjamin Krump, graduated in business and went on to become a corporation president. He has been asked to contribute to several building funds and serve on the board of trustees but stated he was too busy at the present time. His career has been followed more closely than the majority of other graduates.

Problems

One problem faced by Baker College is the present endowment fund. Baker College is in the unique situation of having almost too much money. One effect for the administration has been to promote a rapid expansion of enrollment during the last ten years and to plan still more rapid expansion in the next five years. The expansion has resulted in a vacuum of information about students at Baker College.

The rapid growth of the different schools, particularly Education and Technology, has made each director and dean an empire builder. Each feels his specialty should advance in facilities and student numbers; each ignores the trees for the forest.

Institutional research on students suffers from a general lack of direction. The few individual efforts remain uncoordinated and unknown to others, for the most part. The heavy service function provided by those in charge of records and data, i.e., Martyn Wotkyns the registrar and George Roberts in the counseling center, prevent them from pausing long enough to look around and evaluate themselves and the college.

The recent emphasis on increasing the academic level of Baker College has given rise to the question of changing the grading system. Some faculty members are thinking of increasing the percentage of D and F grades or limiting A grades to 5 per cent of the class population. Various grading systems are currently in operation among the faculty and there is general agreement to make the curriculum tougher in the future, to drop out the lower 20 per cent who are obviously just getting by. How can this be done at the same time enrollment is increased?

Admission standards merit some of the faculty's attention. Again, the general feeling is to raise admissions standards. But for which groups of students? By what criteria? At the present time the college cannot raise the standards of its curriculum if everyone is to be accepted into the college.

One very immediate problem to students at Baker College is the determination of their educational and vocational goals. Until recently, the faculty advisor system was non-functional in promoting such goals, and many students did not make use of the counseling or placement centers. There seemed no way to gather information for a comprehensive picture of vocational or educational information. The situation is improving with a new program of freshmen advisors, but there remain a number of administrative and cooperative problems.

The staff under the Dean of Students, Al Pope, feel they should be doing some active research on students. They have had several meetings on the problem but always concluded that they lacked effective measuring instruments and criteria of evaluation. They felt that the first study they attempted should be effective lest the staff suffer a loss of prestige within the college.

The counseling and testing center must reduce their case load and define more definitely the type of student they should accept. The staff is aware that the heavy service load is reducing effective research and evaluation. The director would like to limit their loads to those now in school and working toward a degree. Perhaps one staff member might be assigned to work with part-time students.

What means can be used to increase student activity on the campus, both in curricular affairs and extra-curricular activities? What level or degree of participation is to be used as a criterion, and how does one measure activities?

* *

QUESTIONS

1. What data should be regularly collected at Baker College? Each month, year, 5 years, etc.

   ...on enrollment?

   ...on drop-outs?

   ...on student attitudes?

   ...on student abilities?

   ...on informal student life?

   ...on selection criteria?

2. What special studies are called for by the immediate problems described above?

3. What administration officers would probably be in the best position to do each type of research?

4. What special studies should be done in view of Baker College's anticipated growth?

IV. Implications for Institutional Research of Studies on Student Characteristics

. . . . **Paul C. Heist**

Some of you perhaps remember seeing a cartoon in one of the more prominent magazines in which a father puts down his newspaper, glares at his son who has recently returned home from college, and asks, "What are they studying in college these days besides you?" At the Center for the Study of Higher Education at Berkeley we have also come to feel at times like this father, and humorously refer to "the new subject matter in education," namely, the college student. I will not list or describe the few rather extensive studies of the past decade or two, or some of the increasing number of studies of the past three or four years, which have as their major concern the characteristics of students and the changes in such characteristics. Many will be acquainted with the report by Phillip Jacob, Changing Values in College, in which he reviews and summarizes such research up to the year 1956. Certainly the Jacob publication must be credited with having aroused concern for the values and attitudes supposedly accruing from education.

Not necessarily in contradiction with the trend implied in the above comments, I noted in reading the WICHE report titled Institutional Research in the West that studies of student characteristics were not flourishing in most western institutions. Twenty-four per cent of all research projects and studies reported through the questionnaire did in some way deal with students, but only 17 studies were completed or under way in which characteristics other than level of ability or degree of achievement were the major variables. Thus, only 11 to 12 per cent of the research dealing with students examined attitudes, interests and personality traits; this may be a slight over-interpretation, but in the remaining 89 per cent of the studies the titles indicated that these were specific to the two old stand-by variables, scholastic ability and achievement. The 17 studies noted amount to 2.8 per cent of the 600 stuides reported on all aspects of institutional research, and many of these were limited to subgroups or small samples of students on any one campus. Longitudinal research, that is, analysis of development or behavioral changes over time, was reported in only 4 of the 127 institutions.

One would have to confess to some amazement regarding these facts, even when allowing that this study is based on an incomplete sampling. If one doubled or tripled the 2.8 per cent, one could still infer a limited concern with evaluation (at least evaluation more broadly

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This lecture was originally given at the Institute for College and University Administrators on Institutional Research at Stanford University in July 1959.

conceived) for the immediate product of education, the individual student. For a great many schools, the aforementioned question of a father to his son does not yet have any relevance. This is not to imply that there is no value in the fairly numerous predictive studies and all those using academic ability measures, grade point averages and achievement test scores.

Undoubtedly, the course grade and grade point averages will continue to serve as chief criteria of college success. But the handwriting seems to be on the wall for expansion beyond this area of great replication. Joshua Fishman recently reported in a paper on "Non-Intellective Factors as Predictors, as Criteria and as Contingencies in the Selection and Guidance of College Students: A Socio-Psychological Analysis" that the results from a survey conducted by staff of the College Entrance Examination Board on all selection and guidance studies in the 1948-1958 decade show that over 70 per cent of the studies dealt with intellective variables; that is, ability and intelligence test scores, achievement test scores, high school rank, and various compilations of grades. But he believes that the 29 per cent of research in this past decade which did include one or more nonintellective variables is a sign of a new and important trend. He predicts in the paper that this trend "will become accentuated in the decade immediately ahead." A number of major multivariable projects presently under way, both in single institutions and across a number of institutions, lend support to Fishman's conjecture.

Another sign of the times is the provocative activity in the past year of the Committee on Personality Development in Youth and its subcommittee on College Peer Groups, sponsored by the Social Science Research Council. Possibly a "new tomorrow" in education has arrived. The time seems opportune and the need is repeatedly being expressed for more comprehensive ways of assessing and evaluating the gains and changes resulting from the college experience. Harold Webster and myself, in a paper on "Differential Characteristics of Student Bodies with Implications for Selection and Study of Ungergraduates" have argued, along with others, that new and improved measures of attitude, motivation and personality traits might serve as useful predictors and criteria of college success. Such measures might well be utilized in research on applicants and entering students, in research leading to refinement of selection procedures, and, pending validation within specific institutions, in facilitating the differential education of students.

These opening remarks represent a plea for more broadly conceived and more comprehensive research on students and student characteristics and on the influence and impact that make for the most effective and most meaningful education and change. Following is a presentation of some rationale for this plea.

Values of Inter-Institutional Research

Most of the present research at the Berkeley Center on colleges and college students is best described as inter-institutional as compared to intra-institutional. Work of the former type in no way obviates the importance of the latter, and the objectives might well be identical or similar for much of the research of both types. However, there are certain fairly obvious advantages inherent in research across several or many institutions.

Total classes in numerous institutions represent an adequate population about which data can be collected; the researcher avoids work with unrepresentative small numbers of students in any of a variety of analytical subcategories. This is a distinct advantage when employing the multivariate analysis approach of the sociologist or when attempting to match samples on several variables at once. Further, use of several or more collegesprovides essential "controls" for more meaningful analysis of any one college.

Of more importance and direct pertinence for the individual institution participating in research across two or more schools are the comparative analyses permitted: e.g., comparisons of total student bodies, total entering classes, or other more specific student subcultures; analyses like Burton R. Clark's in "The Influence of Organization Image on Student Selection" of the reasons for students' selection of different institutions, the processes by which selection is made, and the effect of selection procedures on the varying student bodies; or, the impact of different schools on individuals of similar and different characteristics. The matter of varying productivity among colleges, especially in those graduates following intellectual or academic pursuits, can only be analyzed by involving schools of some variation in productivity. In one of the present projects at the Berkeley center, a diligent attempt is being made to discover the contributing factors underlying the much greater production of scholarship in a relatively small number of colleges and universities in our society.

The examination of many other problems and questions is enhanced by a more comprehensive inter-institutional approach. Study of creative activity and its possible development in college youth almost necessitates investigation of a variety of educational environments. Studying the development of students of superior ability or with particular talents and the factors which facilitate their best efforts can only be done through sampling at a number of colleges. The problems of underachievement or academic failure, of high withdrawal rates, and of student decisions regarding academic major and future vocation have all grown in importance as we attempt to be more discerning about whom to recruit or admit to our respective halls of learning. They, too, are best attacked through an inter-institutional approach.

Paul A. Heist

Large Scale Data Collection

The methodology, the tools of assessment, and the problems of analysis in social science research are imposing and expanding topics, of and by themselves; this is true whether a sample be large or small, whether the field of study is one school or many. To use a single example, what one might view as the relatively simple problem of reliability of measurement, presumably once resolved as far as many were concerned, is presently undergoing considerable revision at the hands of a number of measurement experts. I would cite as cases in point two articles: Harold Webster's "A Generalization of Kuder-Richardson Reliability Formula 21" and Frederic M. Lord's "An Approach to Mental Test Theory."

Further, members of our own research team at the Berkeley Center would urge that investigations on human variables which are important in an educational context be planned within some theoretical framework. Though admittedly there may seem to be only limited agreement on any general system or body of theory, even within a single discipline in the behavioral sciences, the recent work of several research organizations in the design of studies and in the formulation of questions and hypotheses indicates that representatives from education, psychology, sociology and anthropology might agree on some basic theoretical understructure or perspective. Studies involving a comprehensive approach and some common theory regarding human development and change will allow for more complete answers to whatever questions are raised. To be of value, studies of students need not necessarily incorporate the help of persons from several disciplines; however, consultation with these persons would seem to be a positive step in the attainment of more unified theory and more meaningful and fruitful data.

Any research on students in the college or university domain--whether on the type of students drawn or selected, on students' choice of various major programs, on student failures and withdrawals, on the changes and attainments of those that stay, or on the characteristics of those that continue in graduate work--should be related to the objectives of the institution, to the objectives of a specific major department and to the function of education in our total culture and the various subcultures. Only through such rigorous research planning will most institutions redefine their purposes to fit conditions in our rapidly changing world.

The tools or instruments of research exist in great abundance. Inventories, tests, check lists and rating devices are available in an almost unending variety, most of which lend themselves to administration with large groups. Questionnaires, opinionnaires and schedules are to be had for the asking. Unfortunately, the reliability and validity of many of these measuring devices leave much to be desired. The use of any single inventory or questionnaire requires a check on the information and the results obtained through the use of other approaches and other measures of the same behavior. Second only to the objectives and design of research, much thought and foresight must be given to these means of measurement and assessment.

Some of the established and well-known measuring devices are inappropriate for research in an educational setting, chiefly because of their construction for other purposes; therefore researchers in higher education have developed or assembled new instruments. A few examples of this trend are the following: George Stern's revision of the major variables on the Inventory of Beliefs (described in his book, *Methods in Personality Assessment*), and his more recent development of the *Activities Index*, as described in his *Preliminary Manual for the Activities Index and College Characteristics Index*; Robert Pace's development of the *College Characteristics Index*, discussed in his *A Criterion Study of College Environment*; the development of the VC Attitude Inventory at Vassar, explained by Harold Webster in *VC Attitude Inventory and VC Figure Preference*; and the work on the Omnibus Personality Inventory at the Center at Berkeley explained in the *Manual for the Omnibus Personality Inventory* by Phoebe Williams and myself, and in "Construction of a Multiple Trait Personality Test for Use with College Populations" by Harold Webster and myself.

Partly through a concern with high ability students, but also as a result of contemplated research on students in general, the efforts of a number of our staff have gone into building and refining a personality inventory, several questionnaires, and a number of other subsidiary devices. Both the personality inventory and the questionnaires contain a number of scales and items with specific relevance to attitudes and motivation toward intellectual goals and to other behavior theoretically significant in an academic situation. Illustrative data from one of these will be presented in the latter part of this paper.

For the most efficient and meaningful research, a great deal of attention must be given to the design of studies and projects. "Getting the facts" in any area is a process plagued with evanescence and delusion. The general design must contain provisions for "controlled" comparisons and a variety of approaches to the same behavior, both referred to above. At the Center, for instance, when we identify potentially creative students (or failing students, or withdrawing students) at several campuses, and then attempt to assess their behavior and its changes, we work in both a cross-sectional and longitudinal fashion, and we employ several measuring techniques.

Studying Students and Student Characteristics

Students are the chief commodity of the educational venture, even though growing attention to a variety of seemingly tangential efforts might lead us to wonder if students are not somewhat incidental to the over-all process. To iterate the point of the introductory remarks, the study of college students in any comprehensive sense, or of groups of students as cultures or subcultures having potential impact for change, has a rather meager history; but we now seem to be in a transitional period and in the next decade greater funds and much energy will be expended on investigation of many aspects of student life.

Sound and legitimate reasons for studying human beings are certainly not difficult to derive, and it is therefore all the more amazing that *this* wealthy area for observing human behavior--that is, college experiences and student life--has only been superficially tapped.

Objectives for studying students may be diverse from those for human behavior in general, chiefly because education is only one facet of our society and because education is viewed as a temporary phase in a person's life. But whatever the particular merits of research limited to samples of college students, most of the major objectives perhaps apply in varying degrees to most campuses. Some objectives seen as particularly significant in guiding the earlier research at the Center are the following. These were discussed for the most part by Dr. T. R. McConnell, Chairman of the Center, and members of a planning committee, long before any of the projects had gotten under way.

> How much diversity in student characteristics exists *among* the student bodies of various colleges and *within* the student body of any one college? Is the existing diversity, whatever it may be, of importance in the educational process and related to the goals achieved in the varying college environments?
>
> What are the varying background factors (socioeconomic, cultural, religious, and educational) of students in different institutions and of those within single institutions that: (1) relate to certain sets of characteristics and different degrees of academic motivation? (2) relate to or predispose to different levels of aspiration and different areas of interest? (3) relate to the fact that the majority of entering students have seemingly "learned not to learn" and only a minority are intellectually oriented?
>
> To what extent do the objectives and the over-all programs (curricular and extracurricular) of particular situations provide for or accommodate the diversity of students existing on the campuses?
>
> What *degree* of diversity (what level of homogeneity-heterogeneity) within any student body leads to an optimum learning environment for the "pursuit of excellence"?
>
> How may the measured diversity in student characteristics in any college be utilized in differential educational procedures--for example, selection of candidates for honors seminars and undergraduate reading courses or special considerations for the potentially creative?

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> Are there important differences in the personality characteristics and in the scholastic motivation of students who major in various programs? In those continuing in graduate programs? Would such measured differences, if any, be great enough to justify varying educational procedures and objectives?
>
> What are the characteristics and what are the motivational patterns of gifted students and creative students that might more uniquely be utilized in their education?

Hypotheses relative to and derived from the above questions and the present theoretical framework of the research at the Center would probably be of interest, but space does not permit expansion on that theme. To give some meaningfulness and import to several of the above questions and to illustrate implications, data from a few projects at the Center have been utilized. This review will be cursory and of necessity somewhat superficial.

Implications from Research on Students

A brief look at diversity on the single variable of academic aptitude provides a good starting place. The premise underlying questions about diversity is that the greater percentage of institutions of higher education, if not all, should be concerned with and "understand" the heterogeneity of student ability within the single college or university, and that a smaller percentage of schools should view and educate their total student body as a group significantly higher or lower in ability than most student bodies. The data considered here are taken from a study by John Darley and others, done with the Center, on the scholastic aptitude of entering students of 1952 in a stratified, representative sample of the more than 1800 institutions in higher education. The mean ACE total score for the more than 60,000 entering freshmen in this national sample was 104.45 and the standard deviation was 27. The range of institutional means for the 200 institutions in the sample is four standard deviations (using the standard deviation of the individual score distribution). This encompasses the measured ability levels of about 97 per cent of individual students. Less than three per cent of the students score at extremes beyond actual means for total institutional groups. When considering only four-year, non-Negro colleges in this national sample, we still obtain a distribution of means 2 3/4 standard deviations long. Except for the South, the ranges of institutional means within major geographical regions encompass at least two standard deviations. It would appear that high school graduates of great variations in ability can find colleges whose student bodies approximate their specific levels.

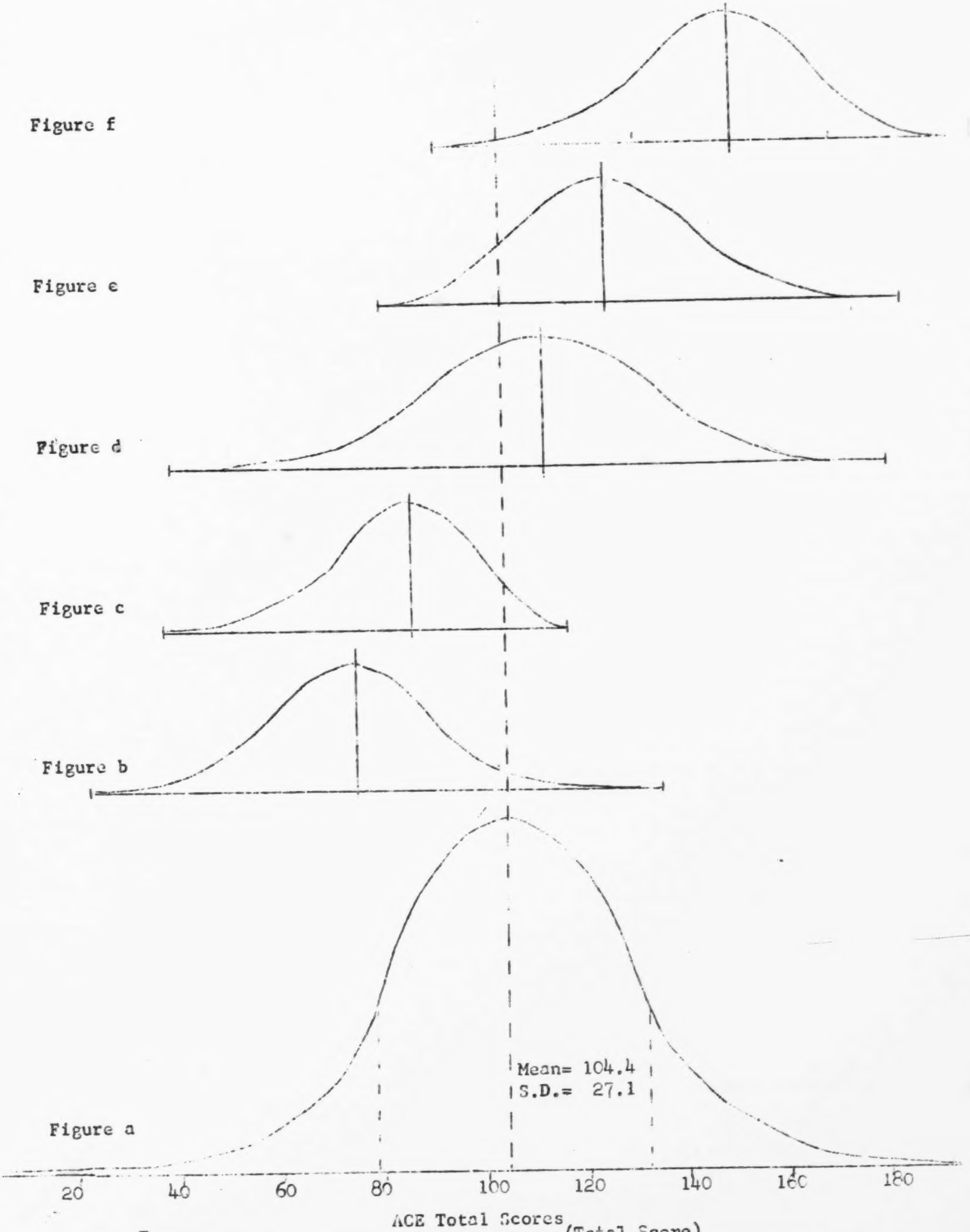

Figure $\overset{I}{II}$. Diagrammatic Presentation of ACE Means (Total Score) and the Distribution of Scores of Entering Freshmen in the Total Sample and in Selected Institutions from a National Sample of American Colleges and Universities (Fall of 1952)

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Plotted distributions for the total national sample referred to above and for five individual colleges are presented in Figure I. All five, located in the northeast and north central regions, are four-year, liberal arts institutions. These graphs do not represent unusual four-year colleges in American higher education, and any of the four major regions of the country has numerous examples of those illustrated by Figures c, d, and e. The top graph (Figure I) is a more unusual college, and the Northeast seems to have almost a monopoly of the schools with mean scores above an ACE T score of 135.

A great variety of interpretive and speculative statements can be made regarding the diversity pictured and described above. A few comments might serve to lead the reader to other considerations and implications. If restricting ourselves to the two colleges at the top, e and f, both having large proportions of high ability students, we note that the students in the bottom 50 per cent of College e are very much unlike those in the top 50 per cent of College f. Only the lower 14 per cent of the students in the latter college have aptitude scores like those of the lower 50 per cent in College e. Using College e again as a reference, one notes that about 84 per cent of the students have ability scores unlike those of 84 or more per cent in colleges represented by Figures c and b. In the latter two cases we find no students that could be described as superior in measured ability, and the definition of superior students would very likely be different in Colleges d, e, and f. College d, whose score distribution almost encompasses the ranges of the other four, is the most typical of higher education in the heterogeneity represented. In colleges such as this, many classes are composed of students whose IQ's vary over 40 to 50 points. Further discussion of these matters can be found in an article by myself entitled "Diversity in College Student Characteristics."

At the Berkeley Center, we would view five colleges such as these as having rather distinct educational environments, even when limited to these comparisons on the ability variable alone. This is based on an assumption that the students are a key factor in determining these institutional environments. Needless to say, the picture of diversity becomes much more complex when we add the differences found in other personality characteristics.

As a brief introduction to some personality characteristics viewed as important in academic environments, mean scores on selected scales* for

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**Brief scale descriptions and sources:*

Thinking Introversion: Liking for reflective thought, particularly of a more abstract nature. Thinking which is not dominated by objective conditions and generally accepted ideas. (Evans-McConnell TSE Inventory)

Complexity: Sometimes called "Complexity of Outlook." Tendency to perceive and to react to the complexity of the environment, rather than to function at a level of greater simplicity. Tolerance for ambiguity and novelty. (Barron, IPAR, and Center for the Study of Higher Education)

Originality: Preference for an organized mode of functioning which emphasizes unusual responses, but which is not generally unrealistic or maladaptive. Associated with independence of judgment, freedom of expression, novelty of construction and insight. (Gough, IPAR, and Center)

Social Maturity: A personality syndrome having its origin in responses to nonauthoritarianism items and their correlates. This measure necessarily increases with increasing amounts of social maturity but is at the same time increasingly insufficient to describe it. It is correlated with age, at least in college populations. High scorers tend to be uncompulsive, impunitive, independent, unconventional, agnostic, uncynical, unromantic, and not subject to feelings of victimization; in addition, they possess genuine curiosity and an interest in intellectual and esthetic matters. (Even though the trait is so complicated, its reliability exceeds .90--Vassar-Center.)

Authoritarianism (F-scale; 28 items of Form 45/40): Anti-democratic beliefs. High scorers tend to be conventionalistic, rigid, prejudiced and emotionally and intellectually suppressed. In addition, their personal security is based upon identification with power, as represented by in-group leaders, and upon rejection of out-groups. (Adorno, *et al*. *The Authoritarian Personality*)

Social Introversion: Discriminates among those who tend to withdraw from social contacts and relationships and those seeking them and finding satisfaction therein. (Drake-MMPI)

Impulse Expression: The general readiness to express impulses, and to seek gratification in either conscious thought or in overt action: ascendance, sensation-seeking, endocathection and intraception, and radical sentiment. (Sanford-Webster-Freedman)

Responsibility: High scorers tend to be perceived as socially responsible. (Gough-Meehl-McClosky)

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National Merit Scholarship (NMS) winners and for male students in several colleges in California are presented in Table 1. (The scores are in the form of standard scores; these were established on a large freshman class whose average ability was approximately at the national mean of 105.) All scales have been or are included in an omnibus inventory (OPI) assembled for research purposes.

Table 1

Standard Scores on Some OPI Scales (original instruments) for the NMS Sample and Other College Freshman Groups (Males)[1]

Scale	NMS Males	California Institution No. 1	California Institution No. 2	California Institution No. 4
Thinking Introversion	64.5	47.5	55.5	53.0
Complexity	57.0	46.0	54.5	62.0
Originality	59.0	46.5	54.5	57.0
Social Maturity	62.5	47.0	55.0	59.0
Authoritarianism	45.0	56.0	50.5	46.0
Social Introversion	51.5	57.5	54.5	54.0

[1] The standard scores are computed with a mean of 50 and a standard deviation of 10 using a sample of college freshmen whose mean ability score is at the national mean for entering students.

In Table 1, Institutions No. 1 and No. 4 both have mean ability scores very close to the national freshman mean, but rather large nonintellective differences appear on the following scales: Thinking Introversion, Complexity, Originality and Authoritarianism. On the last three scales the differences are of a magnitude of one standard deviation or greater. The scores of Institution No. 4, except for the first scale, are most like those of the National Merit Scholarship winners, the latter group being very different on the ability variable. Research results have shown that scores on these scales are closely related to a student's motivation or orientation toward intellectual pursuits and to his activity within an academic environment. However, such a motivational pattern, especially as indicated by the latter three scales, does not necessarily correlate with grade-getting. In contrast to Nos. 1 and 4, the mean aptitude score for Institution No. 2 is approximately three-fourths of a standard deviation above the national mean.

The typical male student in Institution No. 4, whose Thinking Introversion score is near the average of the reference group, is most likely not scholarly in an academic sense but, judging by the other scores, could be characterized as complex in his orientation, as independent, free-thinking, somewhat rebellious and perhaps not a good candidate for colleges with "restricted" student life. Students in Institution No. 1, on the other hand, might be seen as fairly typical of a great many students in our "halls of learning," not motivated academically and not really interested in the acquisition of knowledge. On the basis of additional measurements known to the author, their orientation or quest in college could be curtly described as "applied." We would suggest and contend that these apparent differences in two student bodies are indicative of two different student peer cultures, two different psychological climates (neither of them perhaps conducive scholastic climates), and that existence in such different academic and social contexts would produce different effects on the continuing motivation of individuals. Dr. McConnell and myself have discussed these matters further in an article entitled "Do Students Make the College?" From such obtained differences it seems advisable that research in many colleges should include some analysis of the personality patterns and the psychological climate of student bodies per se.

The significance of differences among institutions on these personality traits which are viewed as measuring an intellectual disposition is also demonstrated by the scores for two liberal arts colleges found in Table 2. The table appears in Heist and Webster's article on "Differential Characteristics of Student Bodies with Implications for Selection and Study of Undergraduates." The mean aptitude levels of the male student bodies in these two schools are approximately the same, over one standard deviation above the national college average. Though the scores on the first four characteristics are high for both schools, the consistency of the differences on the five scales, that is, the pattern of higher scores in College No. 1 over those of No. 2, causes speculation regarding a more provocative climate in the first college. However, the speculations have some external confirmation; observations of student life and a variety of other data indicate the general intellectual intensity of activity on both campuses, but the fervor on one is definitely shared by more individuals. Incidentally, the freshmen in a college like No. 1 score higher on most of these measures at time of entrance than the seniors in many another college.

Table 2

Mean Standard Scores on Selected Personality Scales for Male Freshman Students in Two Liberal Arts Colleges[1]

Scale	Means	
	College No. 1	College No. 2
Thinking Introversion*	63.1	58.1
Complexity*	66.1	60.1
Originality*	64.5	58.1
Social Maturity**	68.8	61.8
Social Introversion**	52.0	48.2

*Significant at the .01 level

**Significant at the .05 level

[1] The standard scores have been computed using a sample of freshman men whose mean ability score is at the national mean for entering students.

When institutions such as these presented in Table 2 and No. 4 in Table 1 are apparently selective of many students with certain distinct attitudes and interests, there is even greater reason for wondering about the prominent subgroups on these campuses. Whether or not subgroups or subcultures are at all identical from college to college, a research concern for the categorization of any total student group might do much more than lead to the identification of the gifted, the potential scholars, and the potentially creative. Determination of the subcultures on any campus, however they may be categorized, and studies of the development and changes in students in these different groups, could possibly permit us to isolate some of the reasons facilitating or hindering effective education and effective change in attitudes and values. It has been suggested and discussed by Benno Fricke, in "Prediction, Selection, Mortality and Quality Control," that research on students should lead to better matching of type of institution and "type" of student. Others have gone so far as to ask whether it would not be advisable to quicken the "main stream" of some student bodies by placing small groups of highly or differently motivated persons there to serve as catalysts. Any such attempts demand much greater understanding of existing student groups and a greater concern on the part of admissions and personnel staff.

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Whatever most schools do to accommodate the greater numbers of the ensuing decades, all institutions will need to pay more attention to specific students and "types" of students. Many colleges may desire to be more selective or be forced to such a policy; other institutions working with thousands and tens of thousands will need to become more discerning about the heterogeneity of their student constituency. A number of colleges, already very selective relative to the ability and achievement of students, are attempting to backtrack a little and are seeking other variables to assist in the decisions made by admissions committees. At the Berkeley Center we have begun to examine whether some motivation or personality measures have sufficient potency and relevance to be used either as selection or classification criteria. Our initial work might be illustrated in various ways and with a number of scale combinations; some data resulting from classification of students through a particular composite of three scales will be utilized here.

Quoting from the Heist and Webster article on "Differential Characteristics of Student Bodies with Implications for Selection and Study of Undergraduates" in which this material is discussed, "We selected samples of high ability students who were either high or low on the following three scales: Thinking Introversion, Complexity, and Originality. To some degree any of these measures would identify students who had intrinsic interests in knowledge and in intellectual activity for its own sake. We wanted to study the differences between groups of students whose scores were at least half a standard deviation above or below the mean on all three of the scales.* The mean standard scores in Table 3 are on samples of National Merit Scholarship winners (males only) who were classified in this fashion into two groups. The High Group might be viewed as genuinely interested in learning (by definition of the criterion scales) and the Low Group as much less so interested, if at all, though this is seemingly paradoxical in view of their high ability and their high school achievement record. It would perhaps be more accurate, or fairer, to describe the Low Group as interested in a different kind of learning. On measures of socioeconomic background and mathematical aptitude these two groups appeared to be identical. Scores for both on scales from the Minnesota Multiphasic Personality Inventory made one group appear as "normal" as the other.

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*Miss Phoebe Williams, from the Center staff, is to be credited with much of the analysis of these data.

Table 3

Mean Standard Scores on Selected Personality Variables for Groups High and Low on Three Scales (TI-Co-O) Measuring Intellectual Interests (N's = 40 Males Each)[1]

Instruments and Scales	High Group Mean	Low Group Mean	Difference
OPI			
Social Maturity	56.4	41.0	15.4*
Authoritarianism	35.2	56.0	-20.8*
Social Introversion	42.3	50.1	-7.9**
Impulse Expression	46.3	38.2	8.1*
Responsibility	62.2	56.3	5.9*
Study of Values			
Theoretical	64.1	57.6	6.5*
Economic	38.2	53.5	-15.3*
Aesthetic	59.4	41.3	18.1*
Social	43.6	43.4	0.2
Political	49.5	50.5	-0.9
Religious	46.7	53.0	-6.3*

*Significant at the .01 level

**Significant at the .05 level

[1] The standard scores are computed with a mean of 50 and a standard deviation of 10 using a large population of college freshmen as the base distribution for the Study of Values; for the OPI scores a random sample of University of California male freshmen serve as the base group.

Looking at the actual scores on other sclaes found in the OPI and Gordon Allport's *Study of Values* (Table 3), the numerous significant differences readily demonstrate how much the two groups vary. Summarizing on the basis of the major differences, they add up to having in the High Group students with greater maturity and general sophistication, greater freedom and flexibility in thinking, greater sensitivity to artistic aspects, a willingness to relinquish traditional or fixed values, and a greater readiness to examine the new and the different. One major investigation at the Center has revealed many students with scores like those in the High Group attending colleges ranking high in the productivity of scholarship (ranks determined by the Knapp and Greenbaum criteria as discussed in their *The Younger American Scholar*).

The figures in Table 4 readily indicate that the academic majors for the two groups are also considerably diverse. Only about 12 per cent of the High Group initially entered Engineering, with the largest concentrations in the theoretical sciences and in subject areas which might appropriately be described as the life sciences and the humanities.

These data are similar to the kind of information that student personnel people have been aware of for a long time and often utilize in their counseling capacities. One might pertinently ask if they are possibly of additional value. For example, supposing a college staff becomes aware of the dominant characteristics and motivational patterns of its students, how many persons of either the Low or High Group can they readily absorb? As implied above, too many of the latter group would probably be hard to come by, but would too many of the Low Group, at any level of ability, add a stultifying component to a small campus? A number of colleges can presently be identified where Low Group students would be rather sadly misplaced; such institutions might use the three scores from the classifying scales as a final criterion for rejection. Looking at this from a reverse direction, in those cases where a person's high potential and unique motivation are recognized, how many institutions would refuse admission and recommend a more appropriate educational environment for this person? More generally, and looking at the two groups from the standpoint of typical American colleges, (1) what attempts are presently made to identify those with either degree of intellectual motivation? (2) What provisions exist in the curriculum and in the teaching staff for educating students of such widely diverse motivational sets? The speculative aspects of the above conjectures and questions are very apparent but suggestive of some of the great variety of research on students which remains to be done.

Student Characteristics and the College of Tomorrow

In the "new tomorrow" of American higher education, *some considerations* of the total program will continue to be: the greater number of students, increased scholarship programs and the granting of scholarships, expanding institutional research, and more diligent assessment and evaluation of students. The last might easily develop and increase

Table 4

Choice of Academic Major for Members of Groups High and Low on Three Scales (TI-Co-O) Measuring Intellectual Interest (N's = 40 males each)

Major Field	High Group		Low Group	
	N	Percentage	N	Percentage
Engineering	5	12.5	25	62.5
Mathematics	7	17.5	0	0.0
Physics	6	15.0	3	7.5
Biology	2	5.0	0	0.0
Psychology	3	7.5	0	0.0
Sociology	1	2.5	0	0.0
Economics	0	0.0	6	15.0
History	6	15.0	0	0.0
English	3	7.5	0	0.0
Music	3	7.5	0	0.0
Industrial Design	1	2.5	0	0.0
Radio-TV	0	0.0	1	2.5
Business	0	0.0	1	2.5
No Choice	3	7.5	4	10.0

to the point of inciting student rebellion, but, beyond any doubt, more and more colleges and universities will take more frequent and more diligent looks at their students.

As institutional staffs become aware of the differences among students and student groups, and cognizant that a larger number of criterion and predictor factors can be measured, much more time and effort will go to studying and attempting to understand the students and the most conducive learning environments. To date, only minimal attempts have been made "to know" and to accommodate the great diversity in students. Differences in institutional structure will probably not change greatly with the large influx of students; certainly the same is true of differences in student characteristics. There continues to be a clear need to study *what* kinds of situations and environments do *what* for different types of people.

Fundamental changes in values and attitudes are probably not possible for all students, but even for the potential *changers* it would seem advisable to look at the circumstances and conditions of change. In general, far too little is known about the development and education of all students, beyond the acquiring of knowledge and skills. What students change? How do they change? What are the factors related to change? These and other questions need the attention of many more research persons in a variety of environments.

In many small colleges, a "proper" selection of students will probably be as effective a step to an improved climate for learning and scholarship as the attention given to selection of faculty. A major variable underlying the impact of *certain* institutions and any change in students is the *students* who select and who enroll in the institutions. The total college milieu may be changed or improved most quickly by changing (through recruiting, selecting, admitting) the student composition. For a majority of institutions this may seem virtually impossible. Therefore, special attention to differential treatment of students within institutions merits particular consideration.

Students in any institution should be seen and understood *within* context of the other students or the predominant peer culture. Their level of motivation, their interests, and their potential for growth are in large part determined by reactions and recognition from their immediate peers.

Measuring, analyzing, and understanding the motivation and personality of students are still in the frontier stages, but it is possible to measure a pattern of variables related (1) to intrinsic interest in learning and to motivation toward scholarly achievements, (2) to the choice of type of institution attended, and (3) to the particular subgroup affiliation within total student bodies. Research to determine the correlates of these three should add considerably to the understanding and education of students on any campus.

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6. Appendix

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